

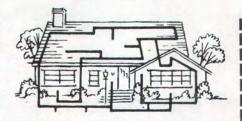


Uses No Electricity... Completely Safe to Use!

Here is a new electronic invention that will let you tune in every channel in your TV viewing area sharp and clear without the expense of installing a big roof-top antenna . . . and without the inconvenience of having those unsightly rabbit ears cluttering up your living room! This device attaches to your TV set in seconds and plugs into any electrical outlet in your home. This marvel adapts the electrical wiring in your home to work with your TV set as a GIANT ANTENNA! It uses no electric current whatever - 100% safe to use! You'll get great TV reception on all channels you are now receiving with a conventional antenna. Ideal for use with FM radios, too. Full instructions for use are included. Order today! You must be completely satisfied with the sharp, clear TV pictures you get or simply return within 7 days for your money back!

No. 4250-Giant TV Antenna 1.98

USE YOUR HOUSE WIRING AS A GIANT TV ANTENNA!



GUARANTEE

This Antenna is guaranteed to improve your TV reception, however, since some areas and locations experience poor TV & FM reception regardless of the type of antenna used, we will refund your full purchase price plus postage if this Antenna fails to improve your TV reception to your complete satisfaction. Try at our risk...simply return within 10 days for your money back.

MAIL YOUR ORDER TODAY — SATISFACTION GUARANTEED OR YOUR MONEY BACK!

Foster-Trent

Dept. **859-EA**, 2345 Boston Post Road, Larchmont, N.Y. 10538

Please RUSH TV Antenna(s) checked. I must be completely satisfied or I may return within 7 days for my money back. (N. Y. residents please add appropriate sales tax.)

- ONE—1.98 plus 45¢ postage & handling. Total 2.43.
- TW0—only 3.50 plus 50¢ postage & handling. Total 4.00. (You save 86¢!)

Print Name _			-
Address			
City	State	7in	

Vol. 17 No. 5, May, 1973

Tennessee A A G A Z I N E

Official Publication of the

TENNESSEE ELECTRIC COOPERATIVE ASSOCIATION

Executive, editorial and advertising offices:

710 Spence Lane, P.O. Box 7232 Nashville, Tenn. 37210 J.C. Hundley, Executive Manager

CONTENTS

TVA-Looking to Tomorrow
Shiloh
"Hack" Haile10
Rugby
Uncle John
Timely Topics
Powell Valley
No-Till Saves Job In Town 25
Progressway

* 1 TO C. C 1	*	4	*	4										-
John E. Stanford								٠						Editor
Jim Lynch									5	31	8	f	f	Writer

SOUTHWEST DAILIES

PUBLISHERS' REPRESENTATIVES

New York • Chicago • Memphis • Dallas • Detroit

Oklahoma City • Kansas City • St. Louis •

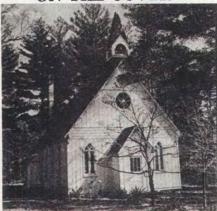
New Orleans • Los Angeles • San Francisco

POSTMASTER: In using Form 3579 please give our key number and mail to The Tennessee Magazine, Box 7232, Nashville, Tenn. 37210.

THE TENNESSEE MAGAZINE is published monthly at 710 Spence Lane, Nashville, Tenn., as an educational and informational service to members of rural electric cooperatives in Tennessee and in behalf of the welfare of their program. Second Class Postage paid at Nashville, Tenn. and at additional mailing offices. Subscription price: 87e per year for members and \$1.00 per year for nonmembers.

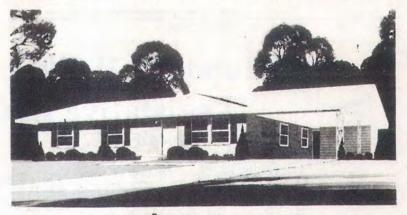
Printed and mailed by Shea/Rustin, Inc., Atlanta, Ga.

ON THE COVER



over for May features the Christ Church Discopal of Rugby, Tennessee, the former English colony which is being restored. See story beginning on page 12.

BUILD ON YOUR LOT



Top Notch Construction - Easy Financing -

We Have the HOUSES -

All Sizes, Shapes, Costs

\$13,28700

Forced Air Heat
& Air Conditioning

MAIL TODAY! Cut out entire business reply envelope. Fill in coupon-envelope, fold, seal (tape or paste). No postage necessary, or call collect (615)824-6534.

PRICES SUBJECT TO CHANGE





P. O. BOX #1, Hendersonville, Tenn. 37075. Please send me complete information on all Jones Homes, with no obligation.

Rural route or street address_

STATE ____

YOUR COMMUNITY_______PHONE______

If you would like a Jones Home Representative to call on you, check here
and attach directions.

☐ I own a lot ☐ I can get a lot ☐ Please send floor plan and prices on all Jones Homes TM-5-73

DO NOT CUT HERE . . . JUST FOLD OVER, SEAL AND MAIL THIS REPLY ENVELOPE . . . NO STAMP NECESSARY

No postage stamp necessary if mailed in the United States

BUSINESS REPLY MAIL

POSTAGE WILL BE PAID BY

JONES HOMES, INC.
P. O. Box # 1
Hendersonville, Tennessee 37075

FIRST CLASS

Permit No. 7

Hendersonville,

Tenn.

Hundley, Walker receives Legislative Laurels

EDITOR'S NOTE — In lieu of the regular "Volunteer Views" section, we instead present a resolution from the 88th General Assembly, State of Tennessee, in which recognition is expressed to Mr. J.C. Hundley, Executive Manager of TECA and Mr. T.O. Walker, Director of Public Relations for TECA for their excellent efforts in advancing unity between the legislature and the rural electric

cooperative systems across the state.

Mr. Hundley has served his position for almost 22 years, while Mr. Walker has been with TECA for over six years and will soon leave us to assume similar duties with the Tennessee Municipal Electric Power Association. The Tennessee Magazine would like to salute both of these gentlemen and the 88th General Assembly for the fine work done in the advancement of the concept of rural electrification.

HOUSE JOINT RESOLUTION NO. 58

By Crowell, McWilliams, Rogers, Crocker, Burks, Dixon, McKinney

A RESOLUTION to express appreciation to the Tennessee Electric Cooperative Association.

WHEREAS, for several years the electric cooperatives of Tennessee, through their state wide organization, the Tennessee Electric Cooperative Association, have worked closely with the General Assembly of Tennessee on matters of importance to the citizens of this state; and

WHEREAS, the TECA, under the direction of its Executive Manager, Mr. J. C. Hundley, has rendered invaluable service to the members of the General Assembly in providing assistance and information and

WHEREAS, Mr. Hundley and Mr. T. O. Walker, Director of Public Relations, have gained the admiration and respect of members of the legislature over the years through their efficiency, courtesy and willingness to assist whenever possible in their dealings with the General Assembly; and

WHEREAS, the TECA produces a brochure for each General Assembly containing pictures of the Governor and his immediate staff and of members of the General Assembly together with certain biographical material and addresses, committee assignments, seating charts and other generally useful material which it makes available to members and staff

of the General Assembly; and

WHEREAS, organizations such as TECA and gentlemen like Mr. Hundley and Mr. Walker epitomize enlightened public service which industry can render to government and reflect great credit upon the member cooperatives; now, therefore,

BE IT RESOLVED BY THE HOUSE OF REPRESENTATIVES OF THE EIGHTY-EIGHTH GENERAL ASSEMBLY OF THE STATE OF TENNESSEE, THE SENATE CONCURRING, That this assembly extend its heartfelt thanks to the Tennessee Electric Cooperative Association for its service to the General Assembly and to the people of Tennessee.

BE IT FURTHER RESOLVED, That copies of this Resolution be sent to Mr. J. C. Hundley, General Manager, and Mr. T. O. Walker, Director of Public Relations, Tennessee Electric Cooperative Association.

ADOPTED: March 13, 1973

THE R. Mudater.

Minfred Ream

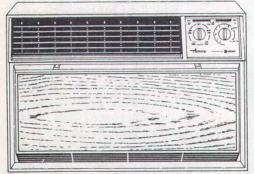
Horsellian Brate

APPROVED Murch 14,1973





SPECIAL OFFER DURING MAY ONLY!



See your Air/Temp Dealer for his inclusive 5 **Year Warranty**

Buy more than just an air conditioner. The Model S18-40G offers you the advantages of whisper quiet performance for cool quiet summer sleeping. The 18,000 BTU unit will give you cool relief after a hard day's work, and give you spring-cool air all summer. Make your own weather by dialing a season. This

model now available for this low cost plus installation and sales tax at your S & T Store.

\$289.00





AUTHORIZED AIRTEMP DISTRIBUTOR



Airtemp—just one of the thousands of quality brands offered at your S & T Store.

Available at your nearby Tennessee S & T Store:

ATHENS

Hammer Johnson Sup. Co. S&T

ATHENS

McMinn Sup. Co. S&T

BLUFF CITY

Baker's Lbr. Co. S&T

BRISTOL

Gentry Lumber Co. S&T

CARTHAGE

Woodard Bros. S&T

CHATTANOOGA

Chickamauga Sport Shop S&T CHATTANOOGA

Stone Bros., Inc. S&T

CLEVELAND

Robinson Supply & Furn. S&T

COLUMBIA

Central Lime and Cement Co. S&T

CROSSVILLE

Home Supply Co. S&T

DAISY

Floyd Hdwe. Co. S&T

DAYTON Robinson Bldg. Ctr. Inc. S&T

DECATUR

Rockholt's, Inc. S&T

DICKSON

Nicks Hdwe. Co. S&T

DOVER

Fox Bros. Bldg. & Sup. Co. S&T

Western Auto Store S&T

FRWIN

Liberty Lbr. S&T

FTOWAH

Etowah Bldg. Ctr. S&T

GALLATIN

Durham Mfg. Co. S&T

GREENEVILLE

Collins Furn. & Hdwe. S&T

GREENVILLE

Mercer Bldg. Supply S&T

HARRIMAN

Christmas Lbr. S&T

HARRIMAN

Gooch Hdwe. S&T HAPPIMAN

Scandlyn Lbr. Co. S&T

JAMESTOWN

Potter Shop, Ctr. S&T

Allred & Potter Furn. Sales S&T

Geo. W. Browder & Son S&T

KINGSTON

Scandlyn Lbr. Co. S&T

KNOXVILLE

Sevier Hdwe. & Variety S&T

LAFAYETTE

Macon Hawe. & Sup. S&T

LAFOLLETTE

Smith Hd-we. S&T

LAKE CITY Cooper Sup. Inc. S&T

LEWISBURG

Lambert Lbr. Co. S&T

LIMESTONE

Limestone Hdwe. S&T

LIVINGSTON

Simcox & Copeland, Lbr. S&T

MANCHESTER

Powers Form Store S&T

MORRISTOWN

Morristown Supply Co. S&T

NASHVILLE Hart Hdwe. S&T

NASHVILLE

Inglewood Hdwe. S&T

NEWPORT

Helm Lbr. Co. S&T

NORRIS

NAGAF Hdwe. & Bldg. Sup. S&T

OLIVER SPRINGS

Scandlyn Lbr. Co. S&T

Scott Food Inc., Hdwe. Div. S&T

PIGEON FORGE

Pigeon Forge Hardware S&T

PIKEVILLE

Sells Bldg. Supply Inc., S&T

PORTLAND

J. E. Kerley & Son S&T

RED BOILING SPRINGS

Witcher Howe, S&T

ROCKWOOD Bowman Evans Howe, S&T

ROCKWOOD

Scandlyn Lbr. Co. S&T

RODGERSVILLE

Liberty Cash & Carry S & T

SHELBYVILLE

Martin Price Hardware S&T

SMITHVILLE

Pack Plumbing & Electric Co. S&T

SNEEDVILLE

Sneedville Elec. S&T

SOUTH PITTSBURG

Howard Horn S&T

SPRING CITY Rhea Scandlyn Lbr. S&T

SPRINGFIELD

Woodard Hdwe. Co. Inc., 5&T SWEETWATER

Western Auto Assoc. Store S&T

TAZEWELL

Ball Howe S&T

WARTBURG Kennedy Bldg. & Supply S&T

WESTMORELAND

Geo. Carter Hdwe. 5&T

Looking to Tomorrow - TVA at 40

A Staff Report



In the Tennessee Valley, planned industrial growth in rural areas is helping disperse population, countering the national trend toward sprawling, environmentally overwhelming super-cities.



New job opportunities, generated by an industrializing economy, have helped reduce the brutal and widespread poverty of the past. But poverty remains the chief environmental ugliness. Carefully planned growth must continue.

Plans take shape for a pollution-frecity of tomorrow, where children has green-space to play and to grow. Other communities built to serve the needs of a day long since past are reshaped to face new demands from a rapidly urbanizing society.

Thousands of rusting junk car hulks and scores of pest-infested garbage heaps disappear from once-blighted landscapes. Students gather in outdoor learning laboratories, seeing and feeling the tangible relationships between man and nature in a way no desk-bound textbook can provide.

The heartbeat of a mountain man, miles removed in time and place from any modern medical care, is computer-analyzed and referred for diagnosis to a physician in a faraway city.

The unifying thread tying these seemingly disparate activities together is that they all are current examples of the four-decade-old, creative, cooperative partnership forged between TVA and the people of the Tennessee Valley region.

Over those years, the Valley hebecome a national laboratory, pathfinder for the Nation in seeking an demonstrating new solutions to new and changing problems. At the core of this effort has been an unswerving belief in the absolute necessity for full participation and involvement by all levels of government, by private enterprise, and, most importantly, by the people of the region themselves.

TVA Board Chairman Aubrey J. Wagner, who has been with TVA for 39 of its 40 years and has headed the agency for the past 11, has intimate knowledge and deep feelings about this "partnership" approach as practiced in the region.

"As TVA celebrates its 40th anniversary, it pays continuing tribute to the hundreds of institutions and thousands of individuals who breathed life into this concept, who made it work in the past and who must make it work in the future." he emphasizes.

"Local, state, and Federal officials, businessmen and farmers, private citizens and public servants, all joined together as a regionwide team electrify the Valley, to rebuild its farmlands and reforest its woodlands, to help create a balanced economy that includes industry and commerce alongside a productive agriculture," Vagner points out.

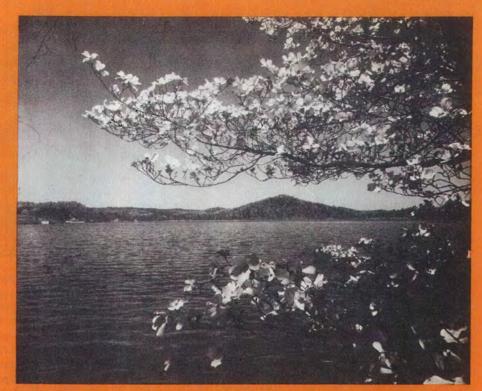
But, he warns, there is little time to reflect on our accomplishments. "At a time when the space-spanning complexities of this modern day world seem to fragment and polarize rather than unite, the need to apply this cooperative partnership to the continuing task of improving the quality of life is greater than ever before.

"We have reached a time when we must move together to create new patterns of living out of the fabric of the urban-industrial region we have become. Only by bringing broad understanding and balanced perspective to bear on the tremendous variety of legitimate but often competing needs in today's society can we hope to meet the challenges ahead. We must concern ourselves with widening the options available as to where and how people may live, work, and play in the years ahead. We must continually balance the need for a healthy economy with a quality in our natural environment better than we have ever known."

Such broad challenges suggest the recessity for planning and cooperative action of equal scope to deal with them. Fortunately, the elements of past development have produced the framework for future direction.

Planned industrial growth is helping disperse population in the Tennessee Valley, countering the national trend toward the forced concentration of people into sprawling, economically unmanageable and environmentally overwhelming super-cities. In recent years, over two-thirds of all nonfarm employment opportunities have been created outside the region's major metropolitan areas.

TVA Chairman Wagner points to the significance of this trend. "The people who are filling these new jobs still have access to the essential ingredients for satisfying living and working and leisure time environments. Acting on this decentralized pattern of growth, we have the opportunity to plan for and create a rural-urban mix of people and jobs and services on a regionwide basis. We have a framework within which we can cope with the complex problems raised by an



Meeting expanding human needs without sacrificing the Tennessee Valley's rich natural beauty is a critical and continuing challenge.



Small and medium-sized towns are the areas of greatest growth in the region. The people living in these areas still have access to green and open spaces, lakes and streams.

(Continued on Page 29)

The Battle of

SHILOH

April 6-7, 1862

By Larry Gage

Electrification Advisor

Pickwick Electric Cooperative



By Act of Congress on December 27, 1894, the Shiloh Battlefield was established as Shiloh National Military Park, containing about 3,600 acres of land. Twenty-seven miles of historic roads have been converted into beautiful scenic driveways, displaying markers that you may follow on a self-guided auto tour.

This historic countryside, still much like it was when the Battle of Shiloh was fought, is located on the bank of the Tennessee River ten miles south of Savannah. On April 6 and 7, 1862, one of the bloodiest battles of the Civil War was fought here as 4,000 men lost their lives and another 20,000 were wounded or missing. This number is equal to more than one-fifth of the combined Union and Confederate forces. In this tragic battle, neighbor often faced neighbor, brother faced brother, and boys who had been playmates from youth and classmates in school met here to put an end to each others' existence, with the average age of all troops being less than twenty years.

A brief description of the activities leading up to and during the Battle of Shiloh are given here.

Federal forces were pushing southward up the Tennessee River after taking Forts Henry and Donelson on the Tennessee and Cumberland rivers, forcing Confederate General Albert Sidney Johnston to abandon Southern Kentucky and much of Middle and West Tennessee. General Johnston had concentrated his 44,000 men at Corinth, Mississippi covering the Memphis and Charleston Railroad.

As Union General U.S. Grant moved southward toward Corinth, he was ordered to wait until General D.C. Buell's Army of the Ohio, which was proceeding from Nashville, could join them. General Grant encamped his men in the woods and fields near Shiloh Church. Shiloh Church itself was of no military importance, and Pittsburg Landing, some three miles to the northeast, was of little more military importance. West of Pittsburg Landing the country rises into a plateau. On the east side of the area is the river; on the north, Snake Creek; on the west, Owl Creek; and on the south, Lick Creek. The southwest corner was all that did not have some natural boundary. The Federal Commanders found this site high, dry and spacious enough to accommodate all their armies when General Buell arrived. The natural boundaries were to be used for protection in case of an attack, which they did not expect.

Warned that General Buell would join Grant, Johnston decided to strike before the two armies could unite. On Saturday night, April 5, the two armies were camped within two miles of each other. The first clash of battle was at 4:55 A.M. when a reconnaissance patrol from Brigadier General

B.M. Prentiss' Army met with Confederate resistance. When the full attack was launched, a short time later, some Federal troops fought doggedly to hold their position; others, caught unprepared, barely had time to escape to reform elsewhere. The unsuspected attack from the Confederates pushed the Union forces back from the Shiloh Church toward Pittsburg Landing to a location known as the Sunken Road. The Federal troops of General Prentiss held this position, exacting a fearful toll from the Confederate lines. Federal persistence in holding this line and the fierce fighting that went on here gained the area the name "The Hornet's Nest."

To conquer The Hornet's Nest, Confederate General Daniel Ruggles brought up 62 cannons, the largest artillery concentration at that time on an American battlefield. Under the cover of these exploding cannons, Confederate infantry moved forward, surrounding and capturing General Prentise and about 2,000 of his men, but not without great loss to the Confederacy in men killed and wounded.

To the right and left of The Hornet's Nest, Federal forces fell back before the Confederate attacks, and the fighting became a confused slugging match. On both sides, regiments became disorganized and companies disintegrated. One thing that the Confederates had not planned — the fighting was pushing the Federal troops toward Pittsburg Landing rather than away from it.

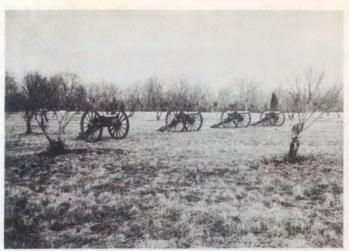
General Johnston was mortally wounded while leading a Tennessee regiment in a charge on the river side of the battlefield to isolate the Unionists from the Landing. Upon



Confederate General Ruggles brought up 62 cannons to concentrate fire on "The Hornet's Nest." This was the largest artillery concentration seen on an American battlefield at this time.



During the battle, soldiers of both sides came here to drink and to bathe their wounds. The water in the pond was stained red with blood, and the pond received the name "Bloody Pond."



The Peach Orchard was in bloom at the time of the battle. The petals from the blooms fell on the bodies, of both sides, like snow.

General Johnston's death, General P.G.T. Beauregard took over the Confederate command.

By late afternoon General Grant's surviving troops were safe in their final lines. The Confederate troops, now more disorganized than the Federals, tried the flanks of the Federals, but were turned back, partially due to the destructive fire, exploding in the air and on the ground from the gunboats, "Tyler" and "Lexington," and from the continued firing of the Federal Infantry. With darkness close at hand, and with his men exhausted after twelve hours of combat without food, General Beauregard called a halt.

This ended the first day's fighting. The loss on both sides was eavy. The Confederates lost their most daring leader, and the Federals lost one brave commander, General W.H.L. Wallace.

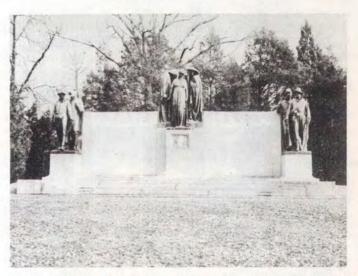
During Sunday night, heavy rains fell and the gunbaots sent shells at fifteen minute intervals all night over the Confederate troops, robbing them of their much needed sleep and rest. Also, during the night General Buell's Army and General Lew Wallace's Division reinforced the Federal Army.

Early Monday morning the two armies approached each other for a final struggle, and the scene was nearly equal to the battle the day before. The Confederates staged a gallant counterattack at Water Oaks Pond, but the Federal armies, now 55,000 strong, pushed the Confederates of 37,000 off the fields that they had gained by much bloodshed the day before. The Confederates withdrew beyond Shiloh Church and began their weary retreat to Corinth. The exhausted Federals did not pursue. The battle was over.

If you would like to visit the Park, an Exhibit Room and Library are located in the Administration Building, near Pittsburg Landing. These facilities are open to the public each day from 8:00 A.M. to 4:30 P.M. Relics, books, maps and a 30-minute film presentation, shown at regular intervals, are just a few of the things available to make your visit more interesting and educational.



General Johnston's Mortuary Monument is located at the site where he was struck in the leg by a Mini ball which severed the large artery. General Johnston was sitting on his horse beneath the tree shown in the background. He died from loss of blood in a ravine a short distance away.



The Confederate Monument was erected in 1917 by the United Daughters of the Confederacy in memory of all Southern troops who fought in the battle.

Saluting: Hack Haile, "The Wizard of Woods"

By Dixie Strode, Home Economist Tri-County Electric Membership Corp.

If being among the very best in one's chosen occupation is the prime basis by which success is judged, then Hascal Haile has enjoyed two successful careers . . . one still very much is progress.

"Hack", as Haile is known to his many personal and professional friends, spent 40 years as a hand crafter of fine furniture. The contents of his home on 4th Street Boulevard in Tompkinsville, Kentucky, as well as in hundreds of homes across the nation, attest to his skill as a master craftsman in the art of designing and making furniture. Additionally, Haile personally designed and brought into being some of the woodworking tools and other equipment which enabled him to produce some of the most beautiful furniture to be found anywhere.

When "Hack" retired from the furniture crafting business some seven years ago, he was determined that he wouldn't be retiring "from" something without retiring "to" something. It was with this very wise premise in mind that—strictly as a hobby—he began making guitars.

In a manner of speaking, constructing musical instruments wasn't an entirely new venture to Haile, a pleasant, friendly man whose appearance belies the fact that he is anywhere in the vicinity of retirement age. As a youngster he was musically inclined—as he still is—but the only musical instruments available to him were those which he could make with his own two hands. This he did with a skill which was destined to improve with age and experience to the point of placing him among the very best in two fields of woodcrafting.

Although "Hack" has spent the major portion of his working life in the first of his two careers—furniture crafting—a visitor would get the impression that his "retirement" career in handcrafting guitars and association with music is the real love of his life and, perhaps in part latently, always has been. In addition to making his own musical instruments as a child, Haile, as a younger man, was a "serious" guitarist and at one time in partnership with his brother, had his



This classic little sign welcomes visitors to Mr. Haile's Tompkinsville, Kentucky operations where some of the finest guitars in the country are made. Mr. Haile still considers it a hobby.

own band. This same brother, who now lives in Louisville, is one of the relatively few people in the entire nation who devotes his full time to repairing fine violins.

Chances are that "Hack" Haile, going back seven years or so, had no intention of getting as deeply involved in his retirement occupation of handcrafting fine guitars as it now turns out that he has. But when you turn out as fine a product as he does, and when you attract clients, such as Chet Atkins, Hank Snow, Porter Waggoner and Shel Silverstein, among many others, and when these customers are ready, willing and able to pay from \$400 to \$1,200 per instrument, as they do . . . well, a man can get mighty involved under those conditions.

"Hack" Haile is a one-man operation. He, and perhaps he alone, can do what he wants done the way he wants it done. Nothing less than absolutely top quality must go into every instrument and his output goal is only one guitar per week; therefore, speed is of virtually no importance in his operation. His work demands considerable concentration and periods without interruption, so "Hack" takes care of paper work,

visitors, phone calls and other such business matters during the daylight hours and works on guitar making only at night.

Top quality guitars require top quality woods and most of these are acquired by Haile through import companies. He uses Brazilian rosewood for the backs and sides of his instruments, ebony for finger boards, and white silver spruce and Spanish pine for the tops, or sound boards.

Haile keeps all his woods on hand at least one year before using, allowing them to dry and then storing them for one month at 50% humidity before cutting and assembling.

The sides of a guitar, the only parts which must be "shaped" to shape rather than just "cut" to shape, undergo especial treatment. These curvaceous "ribs" that join the guitar's tops and backs, and which measure less than 3/32nds of an inch in thickness, must be boiled in water for two to three hours before they are bent to shape in a hot mold for two hours and then allowed to cool.

Haile cuts necks of walnut for steelstring guitars or of Honduras mahogany for classical instruments while this several-hours process of boiling and shaping the sides, or ribs, is going on. He can also use this time in cutting tops, backs, struts and other smaller parts of the to-he-assembled guitar.

As do most specialists in such pursuits as handcrafting guitars, "Hack" has some trade secrets which he doesn't divulge, but assembly of instruments, minus a few details, are fairly routine. The necks and sides are glued together early in the assembly, then the tops in two pieces and with grains matched. Next come the struts in the top after which the sound board is tuned. With the inside the tonal "heart" of the guitar now completed, the back of the instrument, also in two pieces and with grains matched, is glued in place and the finger board attached to the bridge.

Although it is correctly stated that "Hack" handcrafts his fine guitars, it is not to say that he doesn't have many electrical helpers along the way to help expedite his work. In his shop, which is the basement of a house next door to his personal residence at 605—4th Street Boulevard in Tompkinsville, Kentucky, are a 24-inch band saw, a 12-inch jointer, a radial arm saw, 12 routers, a 14-inch rip saw and several shapers and sanders of various sizes. He is served lectrically by Tri-County Electric 1embership Corporation, which leadquarters in Lafayette, Tennessee.

To his many friends and acquaintances, "Hack" Haile represents what most people eventually want but not everyone attains... an ideal retirement. He's doing what he loves, he loves and has pride in what he's doing, he's doing what he loves on his own terms... and he's making a good living in the process.

You can't beat a combination like that with a stick!



To lend validity to the claim of producing the finest quality in guitars, one of Mr. Haile's (center) proudest patrons is none other than Mr. Guitar himself, Chet Atkins (left). Tri-County Electric Membership Corp. Manager Charles Mayhew (right) is proud of both of them.



Somehow, known only to Mr. Haile, order is preserved in the little workshop where stacks of wood, various machines, and other brica-brac are utilized by the Haile craftsman touch.



Taking time to sand the back panel of one of his guitars to the proper specifications is but one example of the quality that is built into all Haile guitars.



Mr. Haile puts the final touches to a classic guitar that will soon be delivered to a doctor in Cincinnati. He receives orders continually from all over the country.

RUGBY: A CURIOUS BLEN ARISTOCRACY, MOUNTAI ND AFTERNOON TEA

By Jim Lynch Staff Writer

It was a community unique to itself, Rugby was, and the Cumberland Mountains would ring with laughter and gaiety as the inhabitants indulged themselves in cricket matches, picnics, and jaunts through the forest.

They grew fine wine grapes and tree roses and built homes of style and grace and gave them English names. They were noble people determined to live a noble life and their mountain neighbors thought them just a little weird.

The small community of Rugby, Tennessee, located on the Cumberland Plateau just down the road from Jamestown was a dream-a vision-the utopian hideaway for a peculiar class of people, the younger sons of English aristocracy.

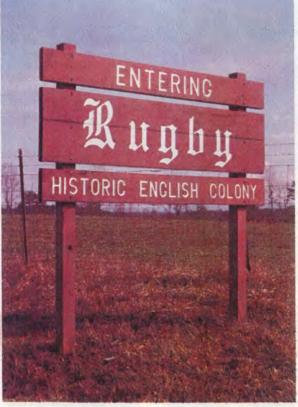
In the latter 19th centry, English inheritance guidelines determined that the family estate went to the eldest son, with all others receiving nothing but token furnishings and a small endowment. These younger sons were expected to pursue careers as doctors, lawyers, military leaders or clergymen-period. Nothing else would do. Any form of manual labor, such as farming, was strictly forbidden and if the younger son couldn't establish himself in one of the approved professions, he was simply expected to "starve like Welcoming all visitors to this quaint little town whose a gentleman," as it was put.

School Days and a sympathizer to the younger sons' plight, conceived the idea of a place where these young gentlemen could establish their own estates and work the land without social pressures but, of course, retaining the culture and grace befitting their social station as English gentry.

His idea developed into the colony of Rugby, named after Hughes' prep school and in 1884, more than 400 persons called it home. It was Hughes' plan that

the colony be self-sufficient, blending a combination of industry and agriculture to the correct balance which would, hopefully, provide Rugbians with the good life.

What he hadn't planned for, however,



history reflects an era when young British gentlemen In light of this unique social roamed these mountains seeking to establish themselves as colonists lived in tents until buildcondition, Thomas Hughes, author productive members of rural society, this roadsign is one of ers could complete permanent of the English classic Tom Brown's the few "new" additions to Rugby's landscape.

> was that English noblemen, regardless their age, were notorious for neglecting certain basics. While their ideas and plans were good, the implementation of these plans left much to be desired. For instance, a tomato cannery was constructed and boilers for it were hauled over the mountains. Labels for the cans were printed in England depicting two young ladies picking tomatoes from trees! They even marked

their prices in shillings and pence. And when the time came for the grand opening-they couldn't have it. Seems that the farmers on the plateau had neglected to grow any tomatoes!

Tennessee's agriculture department tried to advise the young lords on proper growing techniques but they were more accustomed to raising merry cain in England than raising crops in America. They planted beans at the foot of young saplings "to give them some footing to run on," and chose to ride through the autumn foliage rather than plant winter cover crops.

Their lighthearted attitude was expressed in the following lines from a letter written at the time by one of the young squires:

"Only two or three of the seeds we planted have come up; they died, we think, of spinal meningitis. We regretted this exceedingly, for we had learned their Latin names and intended inviting friends in to talk about them."

Without a doubt, knowledge of pioneer living was not their strong suit. Old-timers in the hills would get quite a few laughs watching the young gentry cut all around the base of a towering tree and then run for dear life when it fell, having absolutely no idea of which direction it would fall.

At its inception, the Rugby buildings but, true to their nature, oft times the builders would be

diverted from their tasks to lay out and construct a soccer field, tennis court or even a public flower garden for the young gentlemen who felt that these endeavors were absolutely necessary. Homes could wait, the afternoon soccer match couldn't.

They may not have been front line tillers of the soil, but they were learned men; (very few ladies were with the original colony - they came later).



Among them was Arthur Churchill, first cousin of Britain's wartime Prime Minister, along with graduates of Harrow, Eton, Oxford, Rugby, Cambridge and Wellington.

The Rugbeian, newspaper for the olony, was edited in light and clever style by a succession of Oxford editors. They imported type for their presses from the mother country and created an impressive medium, stressing news from England and acting as a sounding board for the residents who aired their grievances in typically English letters to the editor.

But the pride of Rugby village was its library. Hughes had firmly established himself as a prominent author by this time and a formal breakfast was given him in Boston to celebrate the opening of his Rugby colony. In attendance were many representatives from major publishing houses and when a proposal was offered to establish a free public library for the new pioneers, the Hughes Public Library was born.

The first Treasurer of the library was a Cambridge honor man. The first librarian, whose beautifully handwritten catalogue of the collection is still the only one that has ever been compiled, was a German named Eduard Bertz who was a graduate of Tubingen Jniversity and had somehow become tached to the colony. Currently, a graduate student from the University of Tennessee is compiling another

catalogue of the collection as part of his dissertation.

Housed on its ceiling to floor shelves were the works of the contemporary authors of the day: Thackeray, Dickens, Kingsley and Scott, plus other literary gems ranging from volumes dating to the 1600's to one of the most remarkable collections of 19th Century children's books in America. It was reputed that there were more books on philosophy, theology, botany, geology, medicine, history, and poetry in the collection than would have been found in the average college library of the day.

And they pursued the arts with a fervor unequalled. While their mountain neighbors groaned behind two mules in a summer corn patch, the country squires organized a Cornet Band, the Rugby Tennis Club, which played and defeated teams from Cincinnati, Louisville and Chattanooga, the Dramatic Club which presented contemporary theatrical productions such as *The Prisoner of Chillon*, and various literary societies.

An American visitor to the colony wrote after his stay:

"The people of Rugby are living an idyllic life. But their agonies are terrible to witness when supplies of Worchestershire sauce are exhausted. The only thing worse is the failure of the London Punch to arrive on time."

The small colony was soon to face more severe hardships than a lack of



Brian Stagg, Executive Director of the Rugby Restoration Association, became so enamored with the little English colony that he moved there following his graduation from the University of the South in Sewanee.

Worchestershire, however, and the combination of the cruel Cumberland Mountain winters, typhoid epidemics and mismanagement of colony affairs were to spell her eventual failure. Since all business matters were handled in

(Continued on page 24)



One of the remaining old English homes in Rugby is "The Lindens," named for the two huge linden trees in the front yard. It was built by one of the early colonists, Nathan H. Tucker, who later served as head of the Rugby Commissary, their cooperative general store. Almost all homes in early Rugby were given names and those that remain continue the tradition.



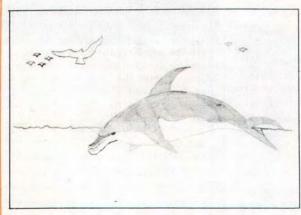
Founder of the colony, Thomas Hughes, never spent much time there, but his picture still hangs in the town library. Hughes' affairs restricted him to England, but his mother did retire to Rugby later.

Uncle John's Page

This page is reserved for the young folks. We will pay one dollar for each poem or drawing published. ALL WORK MUST BE ORIGINAL. Drawings should be in black, and drawn on white, unlined paper. Tell us your age, address, and Electric Co-op. and

Send all items to:

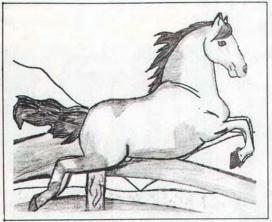
UNCLE JOHN, The Tennessee Magazine 710 Spence Lane, Nashville 10, Tenn.



Lynette Moore Age - 13
Box 131
Harrogate, Tennessee 37752
Powell Valley Electric Cooperative

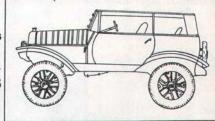
Russell Dean Floyd Age - 9
Route 1
Rutherford, Tennessee 38369
Gibson County Electric
Membership Corporation





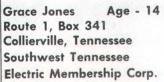
Donna Castner Age - 13 McMinnville, Tennessee 37110 Caney Fork Electric Cooperative

> Billy Joe Rodgers Route 1 Bloomington Springs, Tennessee 38545 Upper Cumberland Electric Membership Corp.





Roger Laycock Age - 15
Hiwassee College
Madisonville, Tennessee 37354
Fort Loudoun Electric Cooperative







The history of lighting

Stone lamps 20,000 years old were recently discovered in the Lascaux caves of France—offering evidence that our ancestors didn't live in the dark ages after all.

The Sumerians, 2,500 years before the birth of Christ, used lamps of gold and alabaster. The Romans were also extravagant when it came to lamps; Pliny records that one richly decorated lighting device set its owner back 50,000 sesterces (roughly \$3,000)—and it probably didn't even have a shade!

Remarkably enough, the Romans are said to have preserved lamps in some of their sepulchres for centuries, and many legends are told of their never burning out. In the papacy of Paul III (1534-40) a lamp was found in Cicero's daughter's tomb, which had been shut up 1,550 years before, and was supposedly still burning.

One of the most famous sources of light to shine from the ancient world, was built by the Romans at Boulougne, on the coast of France. It was a lighthouse 200 feet high and 192 feet in circumference—using great bonfires for signals—and it stood as a reliable guide for mariners for more than 14 centuries!

Gas lamps, on the other hand—the most "modern" source of light before Edison—were used by the ancient Chinese who brought gas up from 1,600 feet below the surface of the earth, then piped it around town in bamboo rods.

Some of the lighting devices of today are just as remarkable. For example, there is a lamp that prevents wool shrinkage and another that can make flowers grow at night. Even more recently, industry has come out with unbreakable flexible light in panel or tape form!

Known as an EL lamp, the device emits soft glowing light and offers a life of about five years. It consists of separate layers of aluminum foil, phosphors, translucent conductor material and copper leads—all sealed within special plastic film which acts as a moisture-proof sandwich—which protects the light

from cracking, chipping, peeling and corrosive atmosphere.

In tape form the light may be a mile or so long. For practical applications, one firm uses the material to make flashing belts and signs for highwayworkers and emergency crews.

More recently, EL lamps are being used as instrument panels for the Lunar Exploratory Module and Command Modules of Apollo space-craft. But EL lamps and their bright electrical cousins that we use every day, were a long way in coming. For it was way back in 1801 that Sir Humphrey Davy invented the carbon-arch lamp and ushered in the beginning of electrical lighting. But the lamp proved to be merely an unusual novelty and oil lamps continued in vogue during the 19th century.

Between 1878 and 1880, Thomas A. Edison and Joseph W. Swan finally developed a practical electric lamp for interior lighting. After many attempts, they discovered a filament that glowed satisfactorily in a vacuum and which didn't use up too much current; this filament was a thread of carbon that glowed brightly with a yellowish light.

Today, the United States leads the world in making electric light bulbs—turning out about 2½ billion lamps every year. More than 700 million of these are for general use (15 to 150 watts). About 500 million are for miniature lamps, and some 120 million are Christmas tree lights.

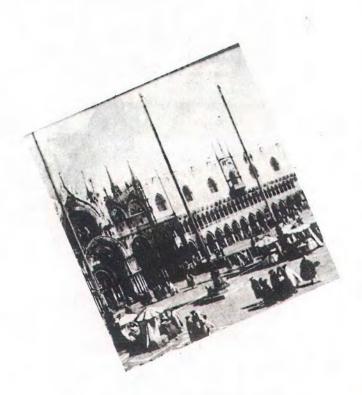
Engineers in the meantime, have developed many types of bulbs. Two of the most efficient of these are sodium-vapor and mercury-vapor lamps, which are used to light highways, factories, television studios and canals. Lamps filled with rare gases such as neon and krypton are widely used for airport fog lights and advertising signs.

Fluorescent lamps furnish socalled "cold light." Using the same amount of power, they are able to produce several times more light and only one-fourth as much heat as filament lamps do.

We've come a long way from the first stone lamps of 20,000 years ago, and its been a very bright and enlightening journey to be sure.



Museum Masterpieces — make them at home when you hypage your favorite prints.
Just mount small reproductions of famous paintings on wooden plaques and you can enjoy the treasures that hang in the Louvre or Metropolitan Museum of Art.



Thanks to modern technology, the ancient art of decoupage is now enjoying one of the biggest revivals in centuries. Decoupage is the technique of applying a print to wood and varnishing it until a porcelain-like surface is achieved. It's a fascinating craft that goes back to the dof the earliest civilizations.

Hundreds of years before paper even existed in Europe, Chinese peasants were cutting intricate designs representing animals, fish, landscapes and folktales. In 16th Century Italy, decoupage was known as *l'arte del uomo povero*—the poor man's art. People who couldn't afford painted furniture achieved the same lavish effect with decoupage.

The French developed decoupage even further and gave it its present name in the 17th Century. It became a favorite pastime in the 18th Century French court and a fashionable hobby in England in the 19th Century. One of the most famous examples of decoupage is a floor screen done by the great poet, Lord Byron. Pictures of his favorite authors, actors, and actresses are on one side, while prize fighters adorn the other.

As lovely as its results were, the 4,000-year-old decoupage was a difficult and time consuming procedure. It meant applying a print to-wood and varnishing it as many

Decoupage



Sand down your board or plaque so it will be smooth wyou place the print on it. Staining, antiquing or distresshould be done after the picture has been applied.

as 25 times until the edges seemed to be part of the surface. But today, the miracle of plastics is responsible for a new technique called hypage. With this method, the print looks as if it were actually painted on the wood, the wood grain ows through the picture, and the satin-like surface nains.

Try this delightful new way of achieving fine works of art by first going through newspapers and magazines for interesting pictures. The ones you choose depend on your own taste and on where you'll want to display the final piece. Portraits and landscapes are right for the living room or other formal areas, while pictures of tempting foods brighten up a kitchen, and illustrations of nursery rhymes fit in perfectly with the baby's room.

Even a newspaper print on very thin paper with printing on the reverse side will hypage beautifully, so just trim or tear the print the way you want it to appear. Then take a wooden board and sand it down. Do not stain or antique it. If you want to "distress" the edges to make the board look old, wait until the picture hs been applied.

Now apply one coat of Hyplar Acrylic Polymer Gloss Medium and Varnish to the print and let it dry about 30 minutes. Apply a second coat to the print and immediately place it face down on the board. Using a wooden roller and, starting from the center, begin to roll out the air pockets. It's very important that you remove all the air bubbles; their presence will prevent the print from transferring.

Placing a heavy object on the board for an hour or so will set the print and keep it flat. Let this dry thoroughly about 24 hours. This is the deciding step because a polymer (a water soluble material) becomes waterproof when it is completely dried. If you don't wait until it's thoroughly dry, you run the risk of losing the print.

After the print has dried, soak the back with water and slowly remove the paper. Here, be very cautious that you do not remove the print.

Now all you have to do is stand back and admire the beautiful work of art you created. Hypage's possibilities are unlimited. Consider preserving the kid's first drawing by hypaging it on a toy chest or other piece of furniture, or start a personal art gallery by mounting small reproductions of famous paintings on wooden plaques and have your own copy of the Mona Lisa.

And gift giving in this holiday season becomes a pleasure—rather than chore—when you can present something that's truly lovely, truly unique—created by you.

Yesterday's Art Today



Easy does it. Hypaging is simple for beginner or old pro. Merely apply one coat of Hyplar Acrylic Polymer Gloss dium and Varnish to the print and let dry. After about minutes, apply a second coat and immediately place the print face down on the board.



Get those bubbles! As soon as the print has been placed on the board, take a wooden roller and, starting from the center begin rolling out the air pockets. This is important because air bubbles will prevent the print from transferring.

Timely Topics

CORN MAY NEED ZINC FERTILIZER

A University of Tennessee agronomist says that although corn plants need only very small amounts of zinc, many soils do not supply enough zinc for normal growth.

"We've seen zinc deficiencies in corn most commonly on soils having a high phosphate level or high pH (6.3 or above) or both," says Donald D. Howard, associate professor with the UT Agricultural Extension Service.

He suggests that growers apply five pounds of zinc per acre as a broadcast application to soils on which deficiency symptoms have been observed. Applying 20 pounds of zinc sulfate per acre will furnish this recommended rate of zinc. The most practical application method is to bulk blend the zinc material with normal nitrogen, phosphorus and potash fertilizers.

"Zinc deficiency symptoms may first be observed two or three weeks after corn emerges," Howard says. "Usually, deficiencies are found to occur in spots within the field, and it's very seldom that an entire field is uniformly affected. Plants do not have the usual dark green color, but instead are light green to yellow. As growth continues, the affected plants are not as vigorous and remain stunted. Leaves may become striped with veins remaining green and tissues between the veins becoming light green to white. With severe deficiency, a broad band of bleached tissue on each side of the midrib beginning at the base of the leaf will occur,"

You can get further information by contacting your county Extension office and asking for Publication 609, "Zinc-Minor Element Deficiency of Corn in Tennessee.

USE FERTILIZER FOR HIGH GARDEN YIELDS THIS YEAR

. A University of Tennessee agronomist believes that more people will be growing gardens this year to help reduce their grocery bill. But, they'll need to fertilize these gardens to get high yields.

The amount of fertilizer to apply should be determined through a soil test analysis, says Donald D. Howard. This analysis is an inventory of the existing fertility status of your garden soil from which a recommendation as to how much fertilizer and lime to apply is made. Contact your local extension agent for instructions and supplies for soil testing.

Fertilizer recommendations made by the soil test laboratory are in pounds of the plant nutrients, nitrogen, phosphate, and potash to be applied per acre, adds Howard, associate professor with the UT Agricultural Extension Service. Therefore, when purchasing fertilizer, take your soil test recommendation with you and have your fertilizer dealer help you in selecting an appropriate material to apply.

"Generally, garden plots are less than an acre," Howard says, "so you'll need to know its size in square feet in order to decrease the pounds of fertilizer proportionally to the recommendation."

COTTON MAY NEED BORON

If you're planting cotton on land that has been limed recently, be sure to apply boron, reminds University of Tennessee agronomist Donald D. Howard.

"Failure to use boron on such land may mean the difference in a high yield and little or no cotton," says Howard, associate professor with UT's Agricultural Extension Service. "Boron deficiency on cotton is more likely to occur on soils with a pH above 6.0 and on sandy soils at any pH value. There is no indication that boron is needed on Delta soils."

Boron is most conveniently applied in mixed fertilizer, Howard says. If the fertilizer is applied in a band, use one-half pound of boron per acre. If the fetilizer is broadcast, the boron rate should be increased to one pound per acre. Boron may be applied in pre-emergence herbicides if a water-soluble form (Solubor) is used. You need to use 2.44 pounds of 20.50 per cent Solubor to get one-half pound of boron.

Howard says that some of the symptoms of boron deficiencies in cotton are small bolls that fail to develop, excessive shedding of squares or young bolls, rupture of the stems at the base of the square, and dark, water-soaked areas that can be seen by slicing the base of the boll. There may be a tendency of the plant to put out new leaves, particularly in the top. This condition is most noticeable a week or so before the bolls begin to open.

"Plants can be killed by high concentration of boron," Howard cautions. "Do not use boron fertilizer on crops for which it is not recommended."

WILT HIGH MOISTURE SILAGE CROP

"A farmer can save 10 to 15 percent more feed per acre from high moisture crops if he wilts them," says Joe D. Burns, University of Tennessee agronomist.

A silo will hold up to 20 percent more dry matter, and you don't need a preservative with wilted silage, explains Burns, associate professor with UT's Agricultural Extension Service.

A moisture content of 60 to 70 percent will make good wilted silage advises the Extension specialist. Wilted silage that is well preserved has a pleasant odor, and UT experiments show that cattle eat more silage as the water content goes down, he adds. The silage is drier compared to high moisture, direct-cut silage.

Burns points out that if a small handful of the wilted crop can be twisted without any juice running out, glistens, and is moist to the touch, the moisture content is around 65 to 70 percent and the silage is ready to be chopped.

The crop will wilt in an hour or two in dry, hot weather while it might take one or two days in cool, humid weather, cautions Burns. A hay conditioner will shorten the time needed to wilt a crop.

Fill the silo as fast as possible, advises Burns. Tests have shown that when the silo was filled with only five feet of silage per day, an extra one percent fermentation loss occurred. In five days, this would mean a five percent loss.

What do you want ... a home you can easily afford?



Jim Walter builds a better buy!

You may find it hard to believe, but even with ever increasing costs of labor, lumber and materials Jim Walter is still building homes that you can easily afford . . . "better buy" homes that are hard to beat at any price.

"Wood-made-better" hardboard siding, heavy-duty roofing and aluminum windows practically eliminate outside maintenance. Materials like these combined with custom-construction and step-by-step quality control inspections assure you of a home you'll be proud to own. You can choose from more than 20 custom-built one, two, three and four-bedroom homes . . . some with two baths.

OVER 20 "BETTER BUY" MODELS . BUILT ON YOUR PROPERTY

To make your home even easier to afford, after completely finishing the outside in every detail, Jim Walter will stop at virtually any stage of in-

side completion. You finish the rest and <u>SAVE!</u> The more interior work you do, the more money you'll save. And you don't have to be a skilled carpenter . . . just handy with a few simple tools. Jim Walter will even supply the materials and include their cost in your mortgage if you like.

MORTGAGE FINANCING to qualified property owners

Come by, call or write today for complete information on how you can have an easily affordable home built on your property . . . and learn how qualified property owners can get INSTANT MORTGAGE FINANC-ING. Jim Walter display parks are open daily from 8 A.M. 'til 8 P.M. and on weekends 'til 6 P.M. for your convenience.



We offer a complete line of SECOND HOME COTTAGES

P.O. Box 95 Volunteer Parkway Hwy. 19 S. & 11 E. Phone 764-7166 NASHVILLE, TENN. 37207 P.O. Box 8440 Northeast Station 3821 Dickerson

Phone 865-1900

KNOXVILLE, TENN. 37901 P.O. Box 1967 4337 Asheville Hwy. Phone 546-4640

CHATTANOOGA, TENN. 37412

3400 Ringgold Road Phone 622-5191

TULLAHOMA, TENN. 37388 P.O. Box 793 New Manchester Hwy. Phone 445-5898 JACKSON, TENN. 38302 P.O. Box 315 Hwy. 45 S. (Bemis) Phone 422-5461 MEMPHIS, TENN. 38118 P.O. Box 18217 3763 Lamar Avenue Phone 363-3410

OPEN 8 'til 8
Weekdays
OPEN 'til 6 PM
Sat. & Sun.



JIM WALTER HOMES

(Mail to nearest office)

I would like to have more information and the cost of building on my property. I understand there would be no obligation to buy and that you would give me these



Powell Valley Hopes To Solve Problems With New Industry

Things were beginning to look a little bleak around Southwest Virginia a few years ago until several energetic businessmen from the area got together and decided that things had to change. The problem that faced these Powell Valley businessmen was that they were losing their most valuable resource — their citizens.

Because these rolling Virginia highlands apparently lacked the opportunities of "big-city" industry, each graduating class from the local high schools was being scattered to the wind to find a living.

And it got so bad that the population of this area dropped from 200,000 in 1950, to 84,000 in 1970. Something had to be done.

So the counties of Scott, Wise, and Lee, and the city of Norton, Virginia, got together and organized the LENOWISCO Planning District Commission whose principal purpose now is the management of the Duffield Industrial Park.

They figured that the only thing missing from their region was the necessary industry to sustain and advance their people and to date, the park



Looking across the development area in Duffield, work continues on another new industry which business leaders in the region feel is necessary for advancement.

is now the home of Virginia, Birmingham Bolt Co., employing about 60 persons, PAK-MOR Industries, a manufacturer of garbage disposal products, which is presently under construction, and the park has options with two other industries. PAK-MOR has indicated that they will hire 180 persons to begin with and expand to 300 in a short time.

The people in LENOWISCO feel that they're on the right track, but it hasn't all been easy.

The project was begun in 1967, largely under the guidance of Biff Caldwell, a proven industrial promoter and their initial capital was raised through local contributions, approximately \$350,000. This amount was matched by \$286,000 from the Economic Development Administration, with later grants of \$300,000 from TVA and \$150,000 from the Appalachian Regional Commission acting as further revenue.

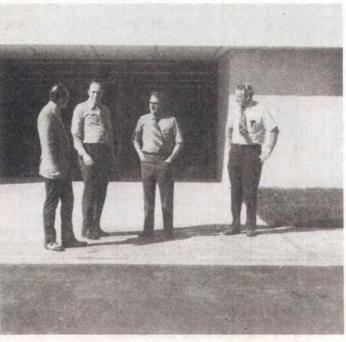
Then they immediately spent \$60,000 for a feasibility study of the area to determine which location was best for an industrial park. The Duffield area was selected.

Today, the Duffield Insustrial Park has about 260 acres of land completely served by excellent water, sewer and electric facilities for sale to prospective industries who are looking to begin or expand their operations into new areas.

However, the LENOWISCO activities are not confined solely to the Duffield Industrial Park. During 1972, they completed the Regional Land Use Plan under a Housing and Urban Development 701 contract, which basically constituted an analysis of existing physical resources within the region, supplemented by projections of economic activities and income and an evaluation of each of the county's and city's economic base.

From this, two major economic development proposals were made. One is the establishment of a major resort complex to capitalize on potential tourist and recreation activities of the region. The other is a regional shopping center complex to supplement the industrial development activity currently underway at Duffield and in other areas of the counties.

Based on the Land Use Plan and its



In front of the new LENOWISCO complex, members of the planning organization and Powell Valley Electric Cooperative get together to plan further improvements. l to r, LENOWISCO Assistant Director Paul Trammell, Bill Sage of PVEC, Phil Gross, Regional Planner for LENO-WISCO, and Ray McConnell of PVEC.



Inside the new complex which is but one year old, secretaries find the conditions excellent in the all-electric building.

"Something has to be done"

By Jim Lynch

major recommendations, a Transportation Plan indicating the major improvements and special purpose highway needs necessary to support the Land Use Plan was also completed.

And, of course, environmental issues are playing an increasing role in the planning activities. In 1972, the Commission completed its Regional Solid Waste Management Plan and Program. This, in effect, culminated a six month investigation of the solid waste problem and identification of the appropriate way of solving the problem.

The plan itself contains recommenations and plans for all incorporated owns in the district, all major unincorporated areas as well as all the counties. This plan has probably been one of the most successful in the history of the district since even before the final document was complete, implementation activities were underway. Draftsmen and engineers plot the course and shape of things to come for the Southwest Virginia area which include expanded recreational facilities and industrial planning.



PAK-MOR Industries, dealing in garbage disposal services, is presently building a new plant on this site which is scheduled to be completed soon and is expected to employ 300 persons when full operations are reached.

LENOWISCO Assistant Director Paul Trammell sees the possibility that the organization could, in the near future, have more than 1,000 acres of land developed in the area for industrial purposes because they continually reinvest their revenues into further development.

And with the expected increase in industry, the Powell Valley Electric Cooperative is bracing itself for a wave of new homes which, no doubt, will begin to pop up everywhere.

Bill Sage, former Assistant Director-Economist for LENOWISCO and currently with PVEC, pointed out that most of the power for the Duffield Industrial Park is supplied by Powell Valley Electric Cooperative and that efforts are being made to meet the expected demands for increased power.

All in all, the LENOWISCO organization has over \$1 million invested in their projects and they're certain it's all going to work out to the betterment of the district.

It was just something that had to be

NO-TILL SAVES JOB IN TOWN

By William L. Clement Soil Conservation Service

"You might say that no-till saved my job. There is no other way we could grow the acreage of crops we do and also let me hold a full-time job in town." This is what Raymond Cooper says the switch to no-till farming has meant to him. Raymond farms with his father, Everett Cooper, in the Ivy Bluff Community of Cannon County, Tennessee. Raymond also works a 40 hour week at the U.S. Air Force's Arnold Engineering Development Center located near Tullahoma, Tennessee.

The Coopers farm their own 200 acres and rent an adjoining 182 acre farm. They grow about 85 acres of barley, 60 acres of wheat, 120 acres of soybeans, 40 acres of corn and 20 to 30 acres of grain sorghum annually. The soybeans and grain sorghum are double cropped following crops of barley and winter wheat. In 1972, silage corn was also double cropped behind barley. "Harvesting good yields from two crops per year from the same land is almost like doubling the size of your farm," according to Everett Cooper, the senior member of this father-son team.

"About three years ago, after our crops were planted, Dad and I agreed that we would be forced to either give up the rented farm or I would have to quit my job and devote full time to farming," Raymond explained. "Farm labor is just not available around here at any wage. And Dad just could not continue to do the big share of the work as he has been doing."

"About this same time," Raymond continued, "we had been hearing of farmers that were growing crops with little or no tillage and greatly reducing their labor requirement. Also, we had read several articles in farm magazines on this new method of growing crops. Later that summer, we attended a notill field tour held in one of the adjoining counties. A number of farms were visited where no-till was being used. We talked to the farmers and saw some of their fields with good crops of no-till corn and soybeans."

"The tour was sponsored by the local Soil Conservation District and conducted by Soil Conservation Service people. After the tour, we contacted our local SCS man and discussed how no-till



Raymond Cooper is shown chopping corn silage. The corn was planted with a no-till planter on fescue sod. (SCS photo)

would work for us," Everett Cooper recalled. "The information, detailed instructions and on-the-farm help the SCS people have provided has proven very valuable in getting us started with no-tillage and in being as successful as we have been," Raymond and his dad volunteered.

"Since we started using no-till we are able to get our crops planted and harvested on time without any trouble," Everett Cooper smiled as he told about how their work-day goes during harvesting and planting time. "We got it down so everything runs as smooth as you please. Raymond runs the combine harvesting the barley and wheat crops until time for him to leave for his 3 o'clock shift. As soon as the combine makes one trip around the field, I start no-till planting soybeans in the grain straw and stubble. When I have planted what Raymond combined, I go back and

apply the herbicides. This way our soybeans and grain sorghum planting is finished the same day that harvesting of the grain crops is completed. We work about the same way in the fall when harvesting the beans and planting the barley and wheat.

"I no-till plant our corn crop about the first of April in old pasture sod that is in need of renovation. After the corn crop, we rework and reseed new pasture. This way we will always have a good mixture of grasses and clovers in our pastures," Everett explained.

Yes, with no-till planted crops, the Coopers are now able to continue their farming operation without any hired help. Also, Raymond can can continue to work at the Air Force Center. And the Coopers have no plans for giving up the farm they have rented for as long as it is available to them.



E.R. Cooper examines the thick mulch of barley straw following combining. Soybeans were planted in this field the same day that the grain was harvested. (SCS photo)

Yes it is easier than ever to get a Land Bank loan-now that we have the increased flexibility given to us by the new Farm Credit Act



See the Federal Land Bank Association nearest you for full details or write: Federal Land Bank, P. O. Box 239. Louisville, Kentucky 40201.

DAY-N-NICHT MARKERS

MAILBOX MARKERS

TECH D CONSTRUCT STYLE \$5.95 STYLE \$6.95



STYLE \$8.95



Spruce up your home with a Name Market!
These markers are Simply Beautiful and will add
that personal touch to your home. An ideal gift
for housewarmings, weddings, that final touch to
your home improvement plans! See why
Markers are America's favorite markers!

A GREAT GIFT IDEA!

Same wording both sides. Any wording you want, up to 17 letters & numbers on long (18" plate; 6 on short (7") plate.

Black baked ename! coated aluminum plates with embossed white reflector beaded letters. · Solid rustproof aluminum plates, scrolls &

Easy to install. Exceeds U.S. Postal Regula-tions for mailbox identification.

ORDER TODAY

YOU'LL BE PLEASED WITH YOUR NAME MARKER!

SATISFACTION GLARANTEED OR YOUR MONEY BACK WE SHIP IN 72 HOURS

WOMACK SALES CO.
A DIVISION OF NURSERY BARN
Route 1 - McMinnyville, Tenn. 37110 Phone Area Code 615 STYLE ANY WORDING YOU WANT 473-8303 PRICE ORDERED BY FREE GIFT ADDRESS CITY, STATE, ZIP. ADD POSTAGE PER MARKER

CARD To + Tony

GIFT ORDERS-

SIGN CARDS & SHIP TO ADDRESSES LISTED ON ATTACHED MEMO ENCLOSE FREE GIFT CARD

Build your own home...the Miles way...

We sell precut homes . . . money saving beauties . . . We furnish everything . . inside and outside . . . Just make rent size payments . . . If you are short on cash, it's no problem. Use ours! We help pay for your foundation, too. Your land need not be paid for. Build anywhere . . . city or country. We haven't found another Company in the entire U.S.A. . . . with an easier home to build . . . or to pay for. Free delivery. 38 plans to choose from. Our free book tells more.

PLEASE RUSH ME YOUR FREE CATALOG ON MILES BUILD IT YOURSELF HOMES



Address

City, State, Zip

Suite 1121, 100 N. Main, Memphis, Tn. 38103

There is a Miles local representative in your area

Handymen, be Homeowners the Miles Way

SKIN ITCH? OVELMO CREAM

has helped since 1910 for temporary relief of symptoms of ECZEMA, PSORIASIS, SKIN ITCHING. Available only from us. Send only \$3.25 for 3½ ounces. Money-Back Guarantee!

OVELMO CO. Dept. T

3707 Villa Nova Rd., Baltimore, Md. 21207



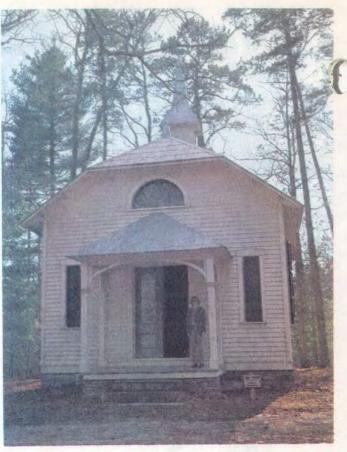
London, the citizens of Rugby were, at long periods of time, at a complete standstill in community action while documents, deeds and other important matters were either in transit to or being discussed by the London magistrates.

Frequent disputes arose over land ownership and at one time there were as many as one hundred pending injunctions against Rugby people concerning everything from timber rights to ownership of livestock. Hughes, as Queen's Counselor, member of Parliment and later as judge, became too busy with other affairs to devote much time to Rugby's sinking condition.

Their majestic hotel, Tabard Inn, burned in 1884 but was immediately rebuilt, only to have it burn a second time 15 years later. Innless Rugby decided that twice was enough. The newspaper ceased publication and its fine press was melted down for its value as lead. Still many of the old families held on, and the village settled down to an old age as gracious and contented as its cultured and serene inhabitants could make it.

Today, 17 of the original 60 plus buildings have survived time and fire to remind visitors that Rugby was, in her day, the culture center of the Cumberlands. Currently watched over by the Rugby Restoration Association, the quaint English colony was last year named to the National Register of Historic Places and has filed applications for state and federal grants to restore and preserve many of the remaining structures.

The pride and joy of the Rugby colony was the Hughes Public Library which contained a collection of volumes that surpassed many college libraries of its day. The library was built to provide the noble English gentry with the necessary reading material to sustain their cultural and literary level, which at that time was far greater than that of their mountain neighbors. Too much literature and not enough attention to reality soon proved to be Rugby's nemesis.



Brian Stagg, 25 year old graduate of The University of the South, serves as the RRA Executive Director, explaining that his first interest in Rugby came when he did a high school termpaper on the colony. Through four years of college at Sewanee, he never could get the little town out of his mind and eventually, following his graduation, moved there to further pursue his interest. He even bought one of the original old homes and

is currently in the process of restoring it to its former grandeur.

Visitors to this "cultured ghosttown" can expect to spend several hours strolling about reliving history. Guides are provided from April to Labor Day and the RRA stages an annual "Pilgrimage" in early August, recreating the frolic and fun that the Rugby founders loved so much.

Cricket anyone?



The inside of the library is crammed with old classics, (Mr. Stagg is shown straightening several here) and was the most popular place in town for the young gentry. They met here to discuss the merits of any new novel.



In very English wing tip collars and vests, the Rugby gentry must certainly have been a source of amusement for the local mountaineers. Time has proved that the Rugby approach to colonization left —sething to be desired.

MUSICAL BEER STEINS

DIRECT TO YOU FROM GERMANY

ADD OLD WORLD CHARM TO YOUR HOME - MORE PLEASURE TO YOUR FAVORITE BREW WITH THESE AUTHENTIC OLD-TIME BEER STEINS

Add a clever, concealed music box in the base that plays a lilting tune when lifted, and you have a true conversation piece to display and serve with pride - to please the most discriminating.

1/2 Ltr. (16 oz.)

12" high 1/4 Ltr. *8 oz.) 9" high



\$15.95

\$25.95

1 (tr. (1 at.)

16" high

Crafted by artisans following the centuries' old traditions of pure clay from the Famous Rhine Region that holds the exact amou of chill you want and enjoy - Kiln baked at 1200 C to assure you of long-lasting, crack-proof interior. The skillfully colored 3 dimensional famous German Scenes and hand engraved pewter lids are truly the signatures of

The quality of these steins is fully guarnateed. Due to the limited supply in the warehouse allow seven (7) weeks for delivery. FREE a \$3.95 Oriental ring with each order. (\$3.00 deposit required on all C.O.D. orders)



306 FORREST DALE

SO. FULTON, TENN. 42041

PLAY "CHORD" PIANO IN 10 DAYS OR MONEY BACK

Even if you don't know middle C from Tweedle Dee, you'll be "chording" with ease in 10 days! This fabulous new chording system takes you on a magic 10-day "musical-trip", each day unlocking secrets of rich, full chording techniques. Learn how to play "pop" tunes with your right hand while your left hand creates an irresistible rhythm using major, minor, and 7th chords - even "far-out" chords like 11ths and 13ths! List price on this great new system is \$3.95 (that's just 39c, per lesson) - but get it now in this introductory offer for only \$2.99 postpaid. If at the end of 10 days you aren't completely delighted with your new ability, return the course for full and instant refund by airmail. You must be thrilled, or we really don't want you to keep it!



Order now and receive at no extra cost:

1. A complete "visualized" DICTIONARY OF CHORDS, with
illustrations of each chord on the piano
keyboard (list price \$1.98);

2. A MAGIC KEYBOARD CHART,
which slips behind the keys and shows
you instantly how to find any note (list
price \$1.98).

TOTAL VALUE \$7.91 - YOUR COST JUST \$2.99 POSTPAID!
Guaranteed! For airmail delivery, please add \$1.00.

Richardson Music Aids, M&JBldg. Suite 108-McAllen, Tx. 78501



Paul McCoy was an arthritic during his lifetime. This condition also struck his two sisters and his son. They tried so many things. Then one day a friend in pharmacal circles told him about a wonderful medicine. He was so grateful he wanted to tell everyone about Norkon, the wonderful medicine for temporary relief in easing the minor pains and aches of arthritis and rheumatism.

Write for his remarkable experience and how thousands of others are now praising Norkon, too. It's free, costs nothing and you may win so much. No obligation at all. Send name and address to: NORKON, Dept. 7105

LEARN UPHOLSTERY AT HOME!



John Winters described his distress to a John Winters described his distress to a noted consulting Doctor, who explained that "taut nerves or anxiety, a jittery feeling or shaky stomach may be symptoms of simple nervous distress. Others are nervous wakefulness and irritability." Then the Doctor told him about a clinically tested tranquilizing medicine with a remarkable Safety Factor against side effects—for calming without habituation, for better sleep, for more comfortable days and nights. It was a turning point in his life. Write for information. It's free.

Orbacine. Dept.7105/101 Park Ave. NY 10017 Orbacine, Dept.7105101 Park Ave. NY 10017

THUNDERBOLD FENCE CHARGER electrifies cattle guards. electric fences. 110-volt charger operates on wood posts without insulators, ends need to close gates or build conventional cattle SOLID-STATE FREE LITERATURE

gates or build conventional cartie guards. \$39.50 ppd. Literature available. Sh.ocks through many wet weeds. 2 year free warranty plus 80 day refund period. Free Tester with order. Dealers wanted. Se-Mar Products. Inc., Dept. 41-11 Corunna, Mich.



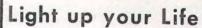
LOOKING INTO TOMORROW

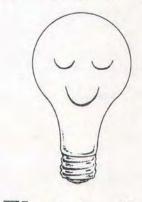
We all spend at least some time trying to guess what will happen tomorrow.

But for a rural electric system such as ours, looking into tomorrow is more than just a guessing game. It's a detailed plan, based on thorough studies of peoples' needs and future power demands for the months and years ahead.

Only through this careful calculation can we plan and build today to provide electricity for our consumers tomorrow.

Shadows in a crystal ball just aren't enough.





Electrically



PROGRESSWAY OR LETHARGY LANE? The property of the three The original Natchez Trace may well

By John Stanford, Editor

In 1937, the Federal Government, in cooperation with the governments of the three states of Tennessee, Alabama and Mississippi, began construction of one of the finest historical, recreational and economic concepts of its kind ever conceived — the Natchez Trace Parkway.

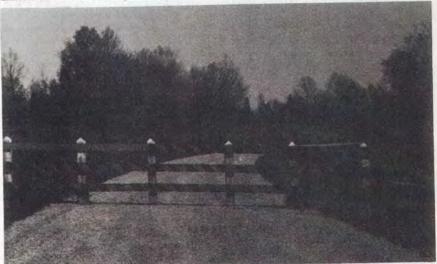
Some 36 years later, in 1973, more than 100 miles of the approximately 450 mile long Parkway remain uncompleted, and these in six different stretches.

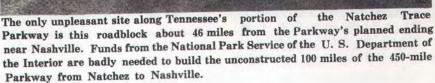
Why, after 36 years, does the Parkway remain uncompleted?

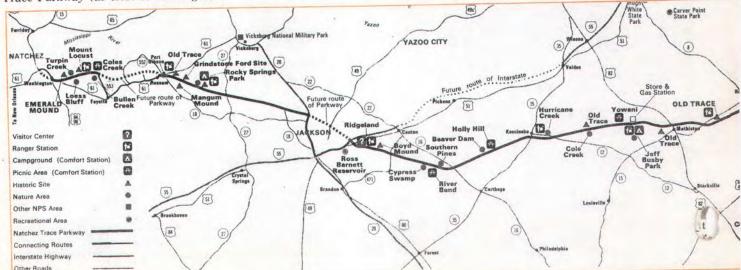
This question, asked of people interested in and knowledgeable of the Parkway, drew a variety of answers. Central among these answers were those that 1) citizens of the three states across which the Parkway runs have grown lethargic abouth the project, 2) there are presently no road-building funds coming from Washington, 3) some rights-of-way have not yet been secured by the local states and 4) local promotional leadership has been lagging, this perhaps in line with the lethargy mentioned in item 1) above. In recent months, however, this leadership has been revived.

Generally speaking, the cooperation between State and Federal Governments amounts to Uncle Sam laving out the route of the Natchez Trace Parkway (as close to the original Trace as possible), each of the three participating states attaining rights-of-way for this route, and the Federal Government building the Parkway, camping and eating sites, rest areas, historical markers and other improvements along the roadway. This has been completed for approximately 75% of the project, enough to attract millions of travelers onto the Parkway but only a fraction of what the attraction would be if the road ran continuously from Natchez to Nashville, as planned and started 36 years ago.

The original Natchez Trace may well have been our Nation's most historically significant and interesting roadway of all time. The story of Natchez Trace is the story of the people who used it: the Indians who traded and hunted along it; the "Kaintuck" boatmen who pounded it into a rough wilderness road on their way back from trading expeditions to Spanish Natchez and New Orleans; and the post riders, government officials and soldiers who, from 1800 to 1830, made it a link between Mississippi Territory and the fledgling United States.







When the French arrived on the Gulf coast in 1699, they found the Old Southwest occupied by the Natchez, Choctaw and Chickasaw Indians. These Indians were relative newcomers to the region, for archeological evidence found in the many mounds and village sites indicates human habitation as long ago as, perhaps, 8,000 years. By 1733, the French had explored the area well enough to draw a map showing an Indian trail running from Natchez to the Choctaw villages near present-day Jackson, Mississippi, and then on to the Chickasaw villages in the northeastern part of the state. French traders, missionaries and soldiers frequently traveled over the old Indian trade route.

In 1763, France ceded the region to England, and under British rule a large population of English-speaking people moved into the area around Natchez. British maps of the period show a trail called "Path to the Choctaw Nation."

During the American Revolution, Spain went to war against England and, as a result of the British defeat, claimed all of the land between the Mississippi and the Chattahoochee Rivers and northward beyond present-day Memphis.

Beginning about 1785, men from Ohio, Kentucky and other parts of the western frontier floated products such as flour. pork, tobacco, hemp and iron down the Mississippi to the markets at Natchez and New Orleans. Once downriver, the only way home was either to walk or ride the 450-mile trail from Natchez to Nashville. The volume of traffic grew until these colorful "Kaintuck" boatmen had trampled the trace into a crude road. For years the pioneer economy was largely based upon the Spanish silver which they carried home.



This is one of a number of rest stations along the Natchez Trace Parkway.

Down a slope from the automobiles at right is an extensive area with picnic tables.

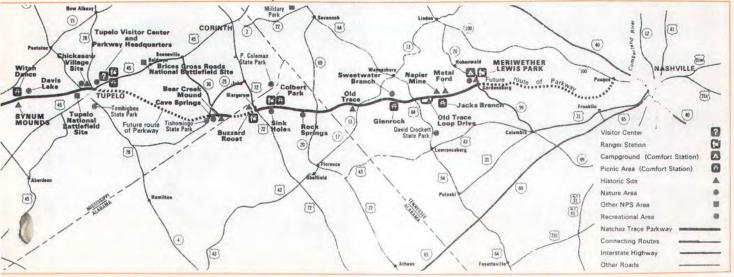
The transformation of the boatmen's trail into the Natchez Trace in 1798 came when Spain surrendered all claims to lands north of the 31st parallel. The United States in the same year created the Mississippi Territory with Natchez as its capital. Adequate communication between the Territory and Washington, D. C. became important and in 1800, Congress extended mail service to Natchez. The road was still a wilderness trail and the Postmaster General complained that it could be used only "at a great expense to the public on account of the badness of the road which is said to be no other than an Indian footpath very devious and narrow." In 1801, President Thomas Jefferson ordered the U.S. Army to clear the road between Nashville and Natchez, but the few troops assigned the task could not hope to complete it without substantial assistance. So, in 1808, Congress appropriated \$6-million to allow the Postmaster General to contract for improvements and within a short time the

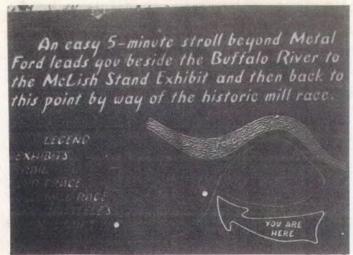
old Indian and boatmen trail became an important frontier road.

The Government encouraged the erection of inns, or "stands" as they were then called, along the trace. The first was built in 1804 and by 1820 more than 20 were in operation. Usually half-breed Indians or white men with Indian wives operated these wayside rest stops. Except for Mount Locust and Red Bluff, all were rather crude inns.

In 1812, the United States declared war on England. Because Spain was an ally of England, General Andrew Jackson's Tennessee militia was ordered down the Natchez Trace to protect New Orleans from a threatened Spanish invasion from West Florida. The invasion did not materialize and Jackson was ordered to disband the militia. He refused and marched his troops back up the Natchez Trace, sharing their hardships and earning the nickname "Old Hickory." In 1815, the British

(Continued on page 28)





The many historical sites are well marked and easily accessible.

(Natchez Trace Continued)

attempted to seize control of the lower Mississippi, but Jackson stopped them at the Battle of New Orleans. The victors then followed the trace northward to their homes. Because of Jackson's victory march, his name has been associated with the Natchez Trace more than that of any other man.

From 1800 to 1820, this rough road was the most heavily traveled in the Old Southwest. Boatmen, soldiers, postmen, missionaries, Indians and pioneer settlers moved along the road, sharing its discomforts and dangers. Steaming swamps, floods, insects, accidents, sickness, unfriendly Indians and occasional robbers plagued travelers on the trace.

In January 1812, the steamer "New Orleans" made its first appearance at Natchez. By 1819, some 20 steamboats were operating between New Orleans and such interior cities as St. Louis, Louisville and Nashville. No longer was



A far cry from the original in most ways except physical distance, this is how the Natchez Trace Parkway looks in 1973.

it necessary for the traveler to use the trace in journeying north. Thus, steamboats, new roads, new towns and the passing of the frontier finally reduced the trace to a quiet forest lane.

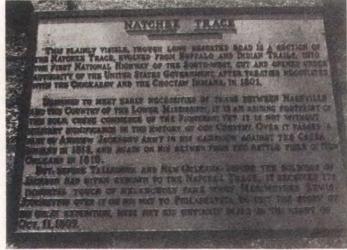
Today, only a few sections of the historic trace remain, some of them preserved and within walking distance of the Natchez Trace Parkway.

In addition to perpetuating the historic value of the old Natchez Trace, the new Parkway, especially when completed, will provide recreational facilities for millions of Americans each year and will channel quite a few millions of dollars into the area which it crosses.

Spearheading a newly recreated drive for early completion of the Parkway are the Tennessee River Valley Association, the Natchez Trace Parkway Association of Tennessee and the Natchez Trace Parkway Association of Mississippi. Resolutions are being sought from the Governors, Legislatures, county judges, mayors, Chambers of Commerce and other organizations in Tennessee, Alabama and Mississippi for presentation to the U. S. Congress through the cooperation of the 37 members of Congress from this three-state area. Also to be solicited are the Department of the Interior, the Office of Management and Budget, and the White House.

Interested officials of other organizations and other interessted individuals will meet with the Tennessee River Valley Association Board of Directors at 10:00 A.M. on Monday, July 23, 1973 at the Pickwick Landing Inn. Pickwick Dam, Tennessee for the kick-off of this positive program of action which seeks early completion of the Natchez Trace Parkway.

With so very much at stake for our state and region, it is, indeed, fervently hoped that the 75% completed Parkway which some have labeled "Lethargy Lane" will soon become a 100% completed Natchez Trace "Progressway."



This marker, located on one stretch of the original Natchez Trace, gives some of the historical background of the old road, calling it "The First National Highway of the South-West."



This is the Grinder House in which Meriwether Lewis met his deat on the night of October 11, 1809. It is located in Meriwether Lewis Park, just off the Parkway between Hohenwald and Gordonsburg.

WIPE OUT ROACH NESTS! Vith just ONE application of this Amazing Formula!



Now you can wipe out disease carrying roaches for years with just one application of this amazing new Roach Killer! No more messy, smelly sprays or dangerous poisons or insecticides that let roaches come back after only a few days! This new Roach Killer contains no D.D.T.—it's a totally new odor-less powder that's irresistable, and lethal to roaches! You must be delighted with the effectiveness of this new formula or simply return the canister within 30 days for your money

back

THIS BIG CANISTER
PROTECTS YOUR
FAMILY FROM
DISEASE-BEARING
ROACHES FOR YEARS
WITH JUST ONE
APPLICATION!

ORDER TODAY... SATISFACTION GUARANTEED!

We pay shipping & handling costs.

Foster-Trent NC.
345 POST ROAD, DEPT. 859D LARCHMONT, N.Y. 10538

(TVA Continued)

inevitably urbanizing society pressured by an inevitably growing population. Here lies opportunity to create a variety of living and working arrangements that can be a model for national action—a viable alternative to the concepts of 'no growth' or mere 'growth for growth's sake.'

"Planned, measured growth must continue. But at the same time we must invoke the best solution technology can discover to make sure that it is accomplished without the sacrifice of clean water or pure air and that the environment is improved, not damaged, in the process."

Solutions, TVA believes, are to be found in the broad, balanced approach that has been the hallmark of the agency's efforts over the past four decades. "Through it all must run this central theme of broad perspective, of a commitment to plans and programs which will provide the greatest good for the greatest number over the longest period of time," Wagner has said.

"This principle extends to the whole spectrum of needs facing the region. It applies to the need for water control projects to sustain a pattern of decentralized growth in rural areas and to the need to preserve scenic streams for aesthetic enjoyment. It applies to questions concerning where trees will grow and which lands should remain in farmland in the urbanizing Valley of tomorrow. It requires continuing pioneering to meet expanding energy needs cleanly, safely, and reliably.

"It involves the development of new technologies for waste processing and recycling of resources and to new techniques for education, health care, and recreation. It includes the need for comprehensive innovations to revitalize existing towns and create new ones," Wagner continued.

A cooperative beginning has been made in all of these areas— and many more. In the Valley of 1973 lies opportunity to create living patterns that can be models of the best of both economic and environmental excellence. But there is no absolute guarantee of success. For in the end, it is the people of the Tennessee Valley who must make the final decisions on the directions the region will take—directions left to helter-skelter chance or guided by sound planning based on a time-tested foundation of cooperative partnership.

The choice belongs to all of us.



Roaches eat Sure Kill greedily and return to their nests which they contaminate, starting a chain reaction that wipes out all other roaches and eggs.

Sure Kill never wears out, is absolutely odorless and safe to use. It contains no D.D.T. A single can cleans out six rooms and keeps them free of roaches and waterbugs for five years. Money back guarantee. Send just \$3.98 for one can, two for \$6.98 postpaid.

Manufactured and distributed by

FOX ENTERPRISES
Box 211
MARION, KY. 42064



With planning, the Valley's urban centers can continue to prosper, providing vital specialized services and stimulating social advancement by bringing people and ideas together.

MARKETPLACE

BUSINESS OPPORTUNITIES

GET INTO CUSTOM UPHOLSTERY. Turn Old Furniture into big \$\$\$ spare time. Reupholster chairs, divans like new. Make custom slip covers, drapes. No experience required. We supply everything. Write for Big FREE Illustrated Book on Easy Home Instruction and how we start you in big \$\$\$ home business. APPROVED FOR VETERANS. Modern Upholstery Institute, Box 899—KJK, Orange, Calif. 92669

50% PROFIT - NO INVESTMENT! Make Extra Money - Sell Lifetime Golden Metal Social Security Plates! FREE Sample and Sales Kit! McCraw Industries, Box 41 TM, Braden, Tennessee 38010

AGENTS WANTED: Sell lifetime metal social security plates. Good profits, free sample. B & L Enterprises, 448 Powers Blvd. Waverly, Tenn. 37185

BIG PROFITS, Sell new lifetime golden metal social security plates. Sample and sales kit free. Perma Stamping Products, P.O. Box 178, Tullahoma, Tenn. 37388.

SELL LIFETIME METAL Social Security Plates. Big Profits! Sample and Sales Kit Free. RUSSELL PRODUCTS, Maury County Shopping Center Department B46, Columbia, Tennessee 38401.

\$25.00 DAILY POSSIBLE addressing—stuffing envelopes. Typewriter—Longhand. \$500.00 MONTHLY POSSIBLE clipping news at home. No experience. Information: Send stamped, addressed envelope, AME-4, Box 310, Le Mars, Iowa 51031.

MONEYMAKING OPPORTUNITIES for SINCERE HOMEWORKERS!! ADDRESSERS, COMPILER, MAILERS ALL NEEDED NOW AND FORESEEABLE FUTURE, RUSH SELF-ADDRESSED ENVELOPE AND 25¢ HANDLING FEE. C. MEEKINS, BOX 388, NEW YORK, NEW YORK 10457

FOR SALE

SEASHELLS!! 100 FASCINATING SEASHELLS from around the world only \$1.00. Moneymaking ideas, sealife catalog included. Shellman, Pier 52 T, Clarksville, Virginia 23927.

NAME, ADDRESS LABELS — \$1.00/1000. SPECIAL: 3 sets - \$2.00. Print name clearly. Order your labels today. Send for free catalog. AMEDEI, Box 050-TY3, Chicago, Ill. 60656.

MAKE YOUR OWN cockroach and waterbug killer for only pennies. Ingredients easy to buy. Guaranteed formula only \$2.00. Order from: RareMailco, Box 5899, Pittsburgh, Pa. 15209.

GOSPEL PIANISTS: Add chords, "runs", progressions. Twenty lessons, "Playing Evangelistic Style Piano", \$4.98. Evangelical Music, TM-1, Hawarden, Iowa 51023.

PIANO & ORGAN SALE — Various Brands — Rentals. Fred Phillips, Shelbyville, Tenn.

SPARROWS EAT PROFITS! Get new, improved trap. Guaranteed satisfaction. Tested and proven since 1919. Thousands of satisfied users. Free particulars. Roy Vail, Antwerp 8, Ohio 45813.

CHAIN FOR CHAIN SAWS — Big savings on top quality, fully guaranteed chain, bars, sprockets, sharpening equipment. Free catalog. Write Zip-Penn, Box 43073-Z, Middletown, Ky. 40243.

MOLES

Rid your yard of moles. No poison, safe. This will let you know when feeding, night or day. Wailt for light while doing your work, also burglar warning, other pest and fishing signal. Complete instructions. \$1.98 ea., 3 for \$5.00. Postage 25¢ ea., less batteries. J. Russ, R.R. # 2, Box 424, Bloomington, Ind. 47401.

LIVESTOCK

CALVES - CALVES - CALVES — 2 to 14 weeks old. All calves delivered on approval with a Veterinary health certificate. Must meet with your approval on arrival only. Minimum order 25 head. We deliver or you may pick your own. Call or write Bill Nolan Livestock, Inc., Bonduel, Wis. 54107. Phone 715-758-8484.

HOLSTEIN DAIRY CALVES or crosses with Angus or Hereford, Bulls or Heifers. Started and larger heifers. Calves delivered on approval. Malcolm Pedigo, Route #7, McMinnville, Tennessee 37110. Phone 615-668-8556.

INTEREST TO WOMEN

NEW: Made to Order Crochet items, \$1.50 up. Send stamped envelope for prices and illustrations. Satisfaction Guaranteed. Whitley's, R4, Box 134 (TM), Kennesaw, Ga. 30144.

NEW UPHOLSTERY Method, easy, inexpensive. Upholster for yourself or start business. Free details. Mid-West Upholstery Institute, 3229-RL Grayrock, Springfield, Mo. 65804

FREE QUILT PATTERNS in Quilter's Newsletter Magazine, plus catalog illustrating hundreds of quilt patterns, plastic quilting stencils, pre-cut patterns, quilt books, kits... 50¢. Heirloom Plastics, Box 501-T4, Wheatridge, Colorado 80033.

REFRIGERATOR, FREEZER GASKETS defrost timers, cold controls, relays. Rangand Wafer Heater Units, thermostats, parts. Washer, dryer and dishwasher parts. V belts. All types electric motors. Send Make, Cabinet model, 8¢ stamp for quote. MODWAY, Box 34 PF, Brookfield, Ohio 44403.

CLOTHING FACTORY CUTAWAYS — 10 lb. assortment top quality materials for Quilts, Doll Clothes, Throw Pillows, etc. Only \$5.56 postpaid, Cutaway, Box 151-TM, Weaubleau, Mo. 65774.

WALLPAPER — SAVE HALF. Huge 1973-74 catalog of sample sheets, over 60 selections, 50¢ to 99¢ single roll — send 10¢. Mutual Wallpaper, Dept. 33, 228 W. Market, Louisville, Ky. 40202.

COLDWATER DILLPICKLES! Can in minutes! No hot brine. Delicious, Crisp. Factory secrets! Recipe \$1.00 Hamiltons Box 233-753, New Ulm, Minn. 56073.

FAT STOMACH, HIPS, THIGHS? NEW! Spot reducing diet! Avoid one food. Pounds, inches, roll off. \$2.00 Hamiltons Box 233-753, New Ulm, Minn. 56073.

EARN \$15 to \$50 in sparetime. No investment ever. Not envelopes. Write for free details. Leeco, 2807 Bel-Air, Marshall, Texas 75670.

PLANTS AND SEEDS

FREE CATALOG write Tennessee Nursery & Seed Co., Box 525, Dept. 90C, Cleveland, Tenn. 37311.

FOR SALE: Cushion Mum Plants, Mixed Colors — 12 for \$1.00 plus .20 cents postage. MERRITT NURSERY, P.O. BOX 763, McMINNVILLE, TENN. 37110.

MISCELLANEOUS

STOP RUSTY WATER FROM RUINING WASH, Staining Fixtures. Proven filter keeps water free from rust, sand, odors, tastes, other impurities. Economical, washable replacements. 30 Day Trial Offer. Write Samcor, 836-RT, West 79th, Minneapolis, Minn. 55420.

GINSENG, GOLDEN SEAL and other roots wanted. Prices high. Write for our complete price list. St. Louis Commission Co., Dept. 2, 4157 N. Kingshighway, St. Louis, Mo. 63115.

NASHVILLE FLEA MARKET — Tenn. State Fairgrounds — Sat. May 26, 9 a.m. to 7 p.m., Sun. May 27, Noon to 6 p.m., Mon., Memorial Day, May 28, 9 a.m. to 6 p.m. 450 Exhibitors from 20 states. FREE ADMISSION and PARKING! This will be the BIG ONE — Plan to come each day Every item imaginable will be for sale ctrade. Anyone can be a seller. Call: Fred Hicks, Jr., (615)799-2912 or 799-8184.

WILD GINSENG WANTED, Goldenseal, Mayapple, Squirrel tails. Summer prices on traps, Free list. Southeastern Fur Co., Rt. 2, Sumner, Ill. 62466.

PHOTO FINISHING



12 Exp. 126 Instamatic **Developed & Enlarged** 20 EXP. \$2.00) INDIANA PHOTOS

Plus 15¢ postage Muncie, Indiana 47305

TEN COLOR BILLFOLD Photos only \$1.75. From your favorite color photo or negative. Twenty for \$2.95. Your photo or negative returned unharmed. Black and white billfolds 20 for \$1.25. Service takes four days in our plant. P. D. Q. Photofinishers, Box 15050-19, St. Louis, Mo. 63110.

AUCTION SCHOOLS

FT. SMITH AUCTION SCHOOL, Ft. Smith, Ark. 72901. Resident and home study. Veteran approved.

LEARN AUCTIONEERING, World's Largest School Free catalog. Term Opens Soon. REISCH AUCTION COLLEGE, DEPT. K, Mason City, Iowa 50401.

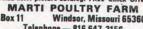
POULTRY

ECIAL - Fryer chicks no sex or breed aranteed. Heavy breed special non-sexed. Rare breed special non-sexed. Other breeds. Price list free. Shephard Hatchery, Route 1, Dept. TM, Cannelton, Ind. 47520

HEAVY MIXED \$5.90 - 100. LARGE WHITE ROCKS \$8.40. OTHER BREEDS \$1.45. PULLETS \$12.20. FREE CATALOG. GUARANTEED SAVINGS! ATLAS CHICKS, HOME OFFICE, 2651 CHOUTEAU ST. LOUIS, MISSOURI 63103.

RARE BREED CHICKS

ARAUCANAS Lay Colored Easter eggs, Blue, Green, Pink, Olive, Gold. Choose from 35 varieties rare and fancy breeds including Bantams and new exotic breeds first time offered. Also popular laying breeds. Safe shipment guaranteed all 50 states. Write for FREE color picture catalog. FREE Chick Offer.





BARNETT'S U.S. APPROVED Pullorum-Typhoid Clean Chicks. Brown egg and white egg varieties. Write for price list. Barnett's Hatchery, Winona, Miss. 38967.





The April puzzle was a little tricky, however most of the replies we received were correct. You were asked to cross out six letters from

SBIAXLNEATNTAERS which would leave you with a common, everyday English word. Well, the tricky part is that if the two words "six letters" are removed from the above, the remaining word, and correct answer is BANANA. Perhaps a little devious on our part, but it's all for fun anyway. Several people crossed out the word BANANA and tried to give us "SIX LETTERS" as the answer, however, they comprise two words instead of the designated one.

The winners, chosen by lot from all correct answers on a rotating basis of the State's three Grand Divisions are as follows:

First Place: Wanda L. Pope of Box 363, Ducktown, Tennessee 37326, a member of Tri-State Electric Cooperative — \$10

Second Place: Sue Hardister of Route 2, Box 116, Whiteville, Tennessee 38075, a member of Southwest Electric Cooperative - \$5

Third Place: Mrs. Clifford Holman of Route 1, Box 42, Livingston, Tennessee 38570, a member of Upper Cumberland Electric Membership Corporation — \$5 And now for the May puzzle:

As the Crackham family were taking their seats on starting out on their tour, Dora asked in how many different ways they could all be seated, as there were six of them and six seats - one beside the driver, two with their backs to the driver, and two behind, facing the driver - if no two of the same sex are ever to sit side by side?

As the Colonel, Uncle Jabez, and George were the only ones who could drive, it required just a little thinking out. How many ways are there?

Send your replies, along with your name, address including zip code, and name of your electric cooperative to:

PUZZLE CORNER THE TENNESSEE MAGAZINE P.O. Box 7232 Nashville, Tennessee 37210

 BUY DIRECT
 20 DAYS FREE TRIAL Body Aids \$49.95 up. Tiny, inconspicuous Allin-the-Ear; Behind-the-Ear; Eye Glass Aids. One of the largest selections of fine quality aids. Very low battery prices. Write for FREE literature. No salesman will ever call. Good hearing is a wonderful gift. * LLOYD CORP. * Dept. TE, 905 9th St., Rockford, III. 61108

Sell Lifetime Metal Social Security Plates. Beautifully colored, complete with two pocket carrying case. SEND FOR FREE SAMPLE & SALES KIT NOW! No Investment or Obligation. ANCHOR SPECIALTIES CO. Box 3958-TN Providence, R.I. 02911





CHANGES TAP WATER TO PURE, DELI-CIOUS SPRING FRESH DRINKING WATER FOR PENNIES A GALLON.

Mini-Aqua stainless steel still removes chlorine, fluoride, iron, sulphates, salt, nitrates, and all impurities. Eliminates bad tastes, improves beverage and food

Use on any heat s hook-ups whatever. heat source-Take you go.

OTHER MAKES OF DISTILLERS, ACCES-SORIES, AND MINERAL SUPPLEMENTS. FREE DETAILS.

UNITED VITO-WAY

Box 2216 - REA Everett, Washington 98203 Address ... City/State Zip

HABAND makes you look slimmer with

8

8

H

B

H

Ħ

ä

Ħ

H

ij

STRETCH WAIST, BELTLESS 2 1595 EASY LIFE SLACKS 2 for 1595

for your comfortable

SUMMERTIME LASY LIV

Easy Living starts after work! And calls for Easier Slacks — Easier to get on over your shoes. Easier to bend when you squat to find the proper can of red paint on the bottom shelf, or stoop to snap the leash on Fido's collar.

Easy on the Waist: Notice in the picture how two gentle stretch inserts g-i-v-e a l-i-t-t-l-e when you sink into your easy chair or get up from a big dinner. Slacks stay neat, right in place. Waist looks trim and under control, You've never known such easy floating comfort!

Easy on the Pocketbook TWO TIMES OVER!

Look! Easy Life Slacks don't cost much to start with — you get TWO pairs for \$15.95! And they cost you NOTHING to maintain. No Cleaner's Bills — No Pressing Bills — and less wear and tear on your more costly clothes. (The coming Easy Life months are very hard on clothing.)

You get Full No-Iron
Permanent Press
WASH AND WEAR

by Burlington Industries
65% "DACRON" polyester
35% "AVRIL" rayon

These are well made slacks with top

These are well made slacks with top quality top names: "Talon®' zippers, "Ban-Rol®' waistband, "Dacron®," "Snugtex®," and "BURLINGTON MILLS." 2 pair for \$15.95!

HABAND of Paterson

USE THIS COUPON

Talk about comfort! Dig into the deep cargo pockets. Enjoy the freedom of action of fuller cut in knees, crotch, and thighs. Best of all relax with the Easy Life No Belt S-T-R-E-T-C-H Waist!

neat - trim - comfortable



with "Ban-Rol®"

no-roll waistband



2½ Inches of S-T-R-E-T-C-H Built In on Both Sides let Slacks Float With Every Move Ē

E

1

H

ij.

That's not a Belt!
It is a 6-inch dressup ornamentation

sewn on for good looks. The gentle stretch inserts and ingenious rubberized Snugtex at hips keep both pants and shirt in place. "Talon" Zipper fly front, hook top closure. Here's a well made, well fit pair of Summer Slacks — 2 pairs only \$15.95!

4 COLORS to CHOOSE

GREEN BURGUNDY GOLD

Easy to Buy - Easy to Order:

Just give us your size, waist and inseam. Mail the coupon and keep an eye on your front door for fast delivery. No parking problems or lines at the cashier counter. All you do is put them on and let the whole family admire. EASY?

HABAND'S S-T-R-E-T-C-H WAIST EASY LIFE SLACKS

No Cuffs - No Belt - No Ironing Ever!

Pair For 1595

HABAND COMPANY Special Service Department 265 N 9th St., Paterson, N.J. 07508

Gentlemen: Please rush pair for which I enclose \$

GUARANTEE: If I don't want to wear the slacks when I see them, I may return them for full refund of every penny I paid you.

812-01 Name

Ivalile .

(please print)

Apt.

IS YOUR ZE on THIS CHART?

SIZE

Street ...

ity

ZIP

HABAND COMPANY - Operating by U.S. Mail since 1925

WE CARRY ALL THESE SIZES IN STOCK! WAISTS: 29-30-31-32-33-34-35-36-37-38-39 40-41-42-43-44-45-46-47-48-49-50-51-52

INSEAMS (Ready to Wear!)

26-27-28-29-30 31-32-33-34

100

SPECIALS: 3 for 23.45 4 for 30.50

COLOR	How Many	Waist	Inseam
GREEN			
BLUE			
BURGUNDY			
GOLD			
Ouder by mail av	iaia		****

Order by mail or visit our stores at 265 N. 9th St., Paterson, N.J. & Berkley Plaza, Rt. 9, Bayville, N.J.

HABAND 265 N. 9th St. Paterson, N.J. 07508