

# Brickmaking In Carter County Once Considered Best In World

**Editor's Note:** This is the first in a series of stories about the history of brickmaking in the Olive Hill area and the important part that industry has played in the economy of the region. The stories were written by Hubert V. Crawford, a retired Morehead State University professor living in Olive Hill, and Dr. Paul L. Crawford, a professor emeritus at West Virginia State College.

Historically, the end of the Revolutionary War heralded a period of family migration and settlement throughout the United States. Many of the settlements were located near rivers and their major tributaries since streams provided the easiest mode of transportation.

Later, railroads opened up areas of the country not immediately accessible to navigatable waterways. During the period following the Civil War the nation underwent an economic transformation which changed many populated areas from merchantile to manufacturing centers.

Following World War II, the demand for "smokestack manufacturing" products declined and communities whose economic well being were directly dependent on a single manufacturing entity also declined and deteriorated. Only service industries remained in many such communities whose "raison d'être" had vanished. One of the major results of these developmental patterns throughout the country was that the adaptable, trainable and industrious young citizens frequently migrated to other locations where they were better able to utilize their personal talents. Those who remained often commuted several miles daily to and from their job. Others found employment in various service industries located in the general vicinity of their homes.

Olive Hill is such a community, located 40 miles west of the Ohio River and situated adjacent to the Chesapeake & Ohio Railroad. By the turn of the 20th Century, Olive Hill had become a thriving community, a center of refractory brick manufacturing, which had brought world-wide recognition to the area because of the superb quality of its high temperature resistant brick.

Olive Hill refractory bricks revolutionized steel making in the nation and the world because these bricks could withstand the very high temperatures needed as furnace liners in the smelters used in steel manufacturing. Olive Hill refractory bricks were used as furnace liners in steel mills and in electric power generating plants throughout the world. As the need for steel and electric energy increased in the world, similarly, the need for high quality refractory bricks increased proportionately.

Unfortunately, the economic stability of refractory brick manufacturing was directly dependent on the economic stability of large steel manufacturing companies and electric power companies. When the need for high temperature fossil fuel furnaces and use of steel products diminished the need for refractory brick furnace liners decreased. Thus, following WW II, refractory brick manufacturing declined and with it the communities whose economic base was directly related to the brick making industry.

Brick making has been a significant manufacturing industry for thousands of years. The Babylonians over 5,000 years ago, used mud and clay deposited by the Tigris and Euphrates Rivers to make their building blocks. The great pyramids were constructed using sun-dried brick and faced with kiln dried glazed brick of many and varied colors. The chief occupation of captive Israelites in Egypt during Bible times was brick making, utilizing mud and clay from the Nile River. Straw was mixed with clay to give it more adhesive quality.

Adobe bricks were made by the southwestern inhabitants of North America long before our country was discovered. Other types of

brick have been used in building construction and in street paving as an improvement to cobblestone streets.

Prior to the Industrial Revolution and the Civil War period, America was primarily dependent on the cottage industries for manufactured goods and produce and almost no machinery or equipment was standardized. The need for interchangeable parts for guns and other types of equipment brought about a concerted effort for standardization of equipment and parts.

The need for quick and efficient means of smelting ore increased the need for high temperature furnaces which did not yet exist. Smoke stack industries, as they are frequently called, were in desperate need of high temperature furnaces, yet the high temperature needed to smelt the ore would also melt their furnaces. Thus, the need for high temperature resistant furnace liners were desperately needed by these industries. The key ingredient of high temperature resistant bricks was a special flint clay that had been discovered in the general area of Eastern Kentucky in late 19th Century.

Pure clay is defined as containing the following elements: 39.8 percent alumina, 46.3 percent silica, and 13.9 percent water. According to the *Refractories Manual Publication*, flint clay, found in abundance in Carter County, contains the smallest amount of impurities.

G.E. Carlyle, manager of the Olive Hill Firebrick Company in 1895 described the three types of clay as: flint, semi-flint and plastic. Plastic clay, or bonding clay, found in the Olive Hill area proved worthless; however, high quality flint clay was found in several areas. Flint clay was first discovered in Eastern Kentucky on the J.W. Richards family farm near Soldier. Flint clay was also discovered a few miles west of Olive Hill on Perry's Branch.

The general bed of flint clay was three to nine feet in thickness and the high quality of this clay won first prize in world competition at the World Exposition in Jamestown, Va., in 1907 and it was refractory brick that brought Olive Hill its fame.

The development of the Olive Hill

District began with a large tract of land jointly owned by K. B. Grahn, Joseph Eifort and E.M. Stoughten.

Almost 6,000 acres were owned by these men who had the original intention of mining iron ore. Later, the property was partitioned into three major sections with K.B. Grahn receiving approximately 2,000 acres in the area now called Grahn, Kentucky; Joseph Eifort received the central portion adjacent to and including the village of Olive Hill, and E.M. Stoughten was allotted 1,950 acres of the western part of the section.

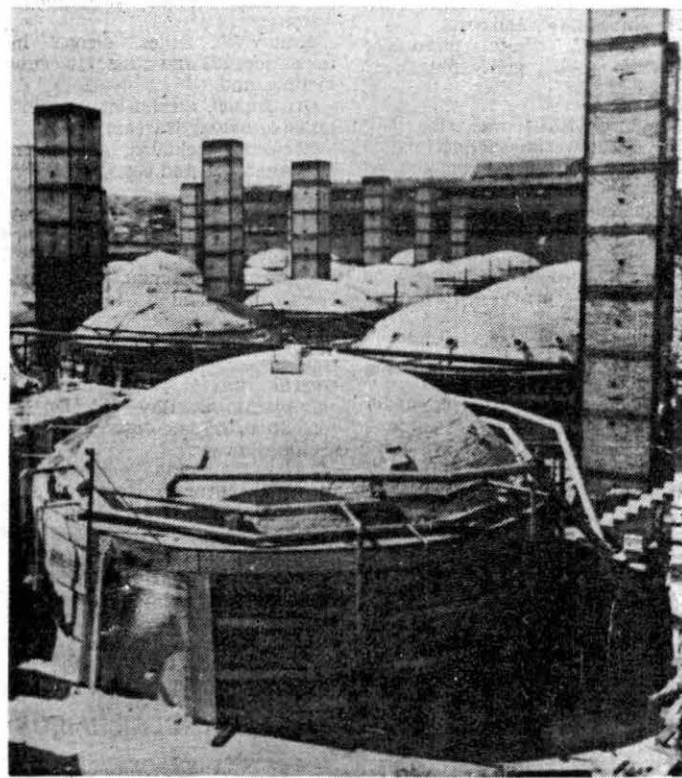
All of this land had iron ore deposits and also had a vein of flint clay from which the well-known refractory bricks were made. Eifort sold 1,700 acres of his land (1889) to J.J. Hoblitzel, Meyersdale, Pa.; E.S. Hitchins from Frostburg, Md. and George H. Parks from Wheeling, W.Va. These men and G.E. Carlyle planned and built the Olive Hill Fire Brick Company plant at Olive Hill, which was the first refractory brick plant built in the interior of Kentucky.

Carlyle, in 1889, was superintendent of the Bessemer Fire Brick Company in Bessemer, Ala., and had used flint clays mined in Olive Hill. Grahn shipped his flint clay to Louisville, where he had built a fire brick company in 1889. Later, in 1913, he built another brickyard at Grahn. The Olive Hill Fire Brick Company and the Harbinson Walker Refractories were built on the land allotted to Eifort.

Grahn, an immigrant from Germany, had been trained in mining engineering and had first worked for a Pennsylvania company. Later, he moved his family to Ashland and became treasurer of the Eastern Kentucky Railroad Company. The railroad company

operated a "pig" iron smelting furnace in Ashland named Honeywell Furnace. Grahn purchased minerals and land in and around Olive Hill during this period. Meanwhile, he had purchased the *Ashland Independent* newspaper which he operated for approximately six years.

Carlyle was employed by J.J. Hoblitzel, E.S. Hitchins and George H. Parks to help erect the brick manufacturing plant and he served as its manager from 1895 to 1907. This plant was incorporated as the Olive Hill Fire Brick Company in 1895 and later changed its name to General Refractories Company.



Bricks made at the Olive Hill Refractory, shown above, revolutionized steelmaking in the nation and the world because the bricks could withstand the very high temperatures needed as furnace liners in the smelters used in steel manufacturing.

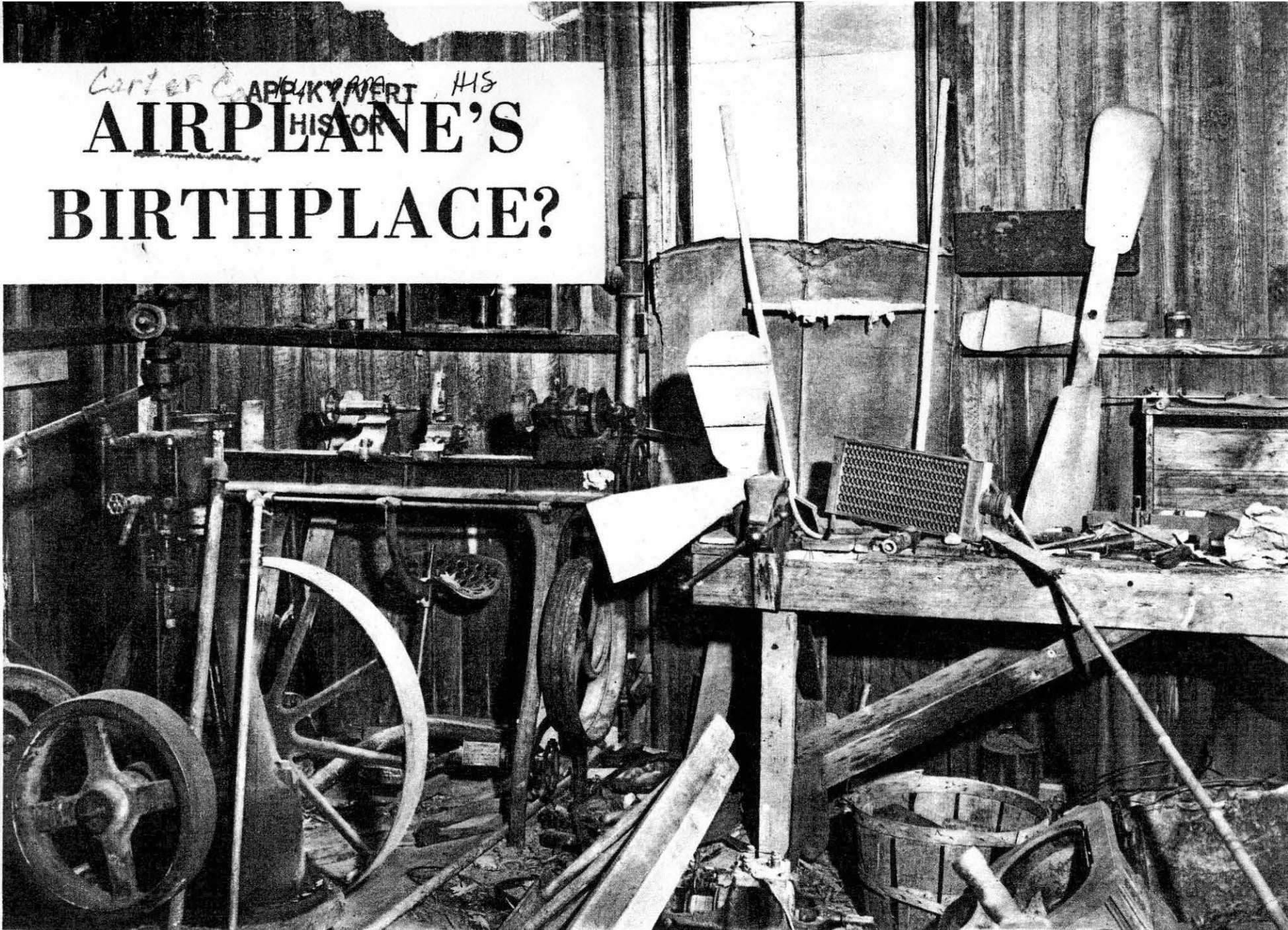
COHIST

File 23

Carter County history


Carter Co.

*Carter County* *APPLY APT HIS* *HIS*  
**AIRPLANE'S  
BIRTHPLACE?**



Courier-Tribune March 1951

Matt Sellers' Carter County workshop still stands. On the bench are parts of early experimental planes he made: propellers, radiator, bamboo for framework.

 UAR, mighty quar, the folks in the Fireclay

The record's misty, but that flying machine Matt Sellers



**Q**UAR, mighty quar, the folks in the Fireclay section of Carter County used to say 50 years ago when they talked about young Matt Sellers.

And that was often because Matt Sellers, whose well-to-do family moved to Kentucky from Maryland, was quite the most unusual thing introduced to Carter County up to then.

Wasn't he forever reading books by that feller Shakespeare and listening to opera music on his gramophone?

Hadn't he built some kind of infernal steam machine he called a light plant, and which kept the big, three-story Sellers house there on the hill lit up like a Christmas tree?

And, worst of all, wasn't he piddling around with some blooming contraption he called a flying machine?

That flying machine idea proved, the Carter County folks agreed, that Matt Sellers was nutty; nutty as a fruit cake, some went so far as to say.

Just think, Matt Sellers actually thought the little brass motor he'd made could send him flying through the air in the linen-covered, bamboo skeleton that resembled a wagon with wings.

He'd be lucky, they nodded in agreement, if he didn't break his own neck or that of Eif Manion or Lincoln Binion, the two local boys who worked around the Sellers place.

Such was the skeptical, almost hostile, local reception that greeted the first efforts of Matthew Bacon Sellers to invent an airplane.

But Sellers did invent an airplane, an engine-driven craft which he flew about over the Carter County farm and kept aloft for several minutes at a time.

The exact date of Sellers' first successful flight isn't known for sure. Neither is it known when he started trying to make a plane. Those dates and much more of the Sellers story are lost behind the misty curtain of time. He died in 1932 and his aged brother, Samuel Sellers, a resident of Baltimore, is

## The record's misty, but that flying machine Matt Sellers built in Carter County *could* have been the first one up

By JOE CREASON, *Courier-Journal Staff Writer*

unable to fill in the gaps that appear in the narrative.

Most of the older residents of that part of Carter County, men and women who might be able to supply missing bits of information, also are dead. Those who were young then disagree on facts, particularly dates.

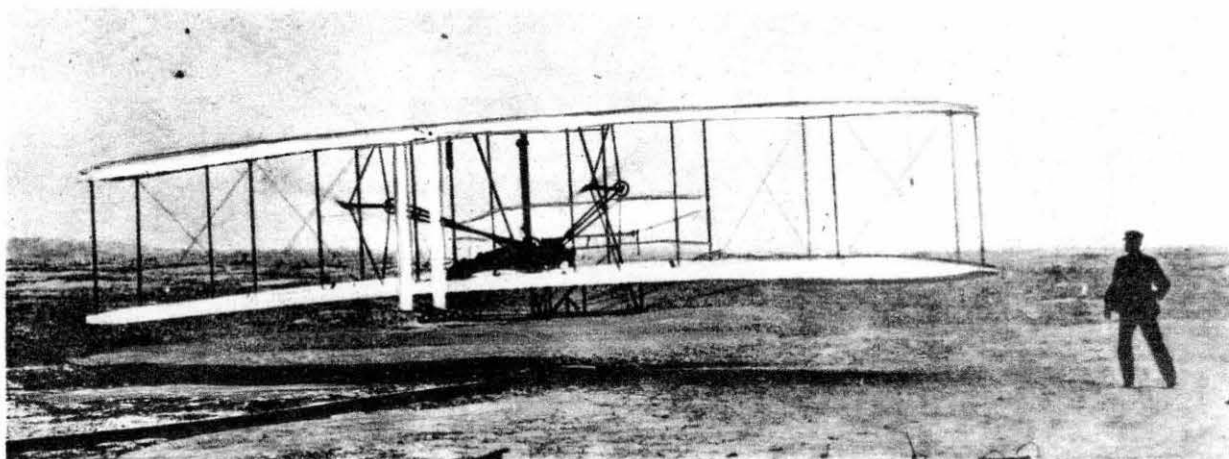
Some say, and with a ring of authority, that he was flying as early as 1902, before the Wright brothers. Others say the first flight was between 1906 and 1908.

Eif Manion, now 80, who worked for the Sellers

family, can't pin down the exact year he first watched with unbelieving eyes as Sellers sent his crude airplane speeding down a steep hillside and soaring up into the air.

"I can't rightly say as to the year," he says, "but I'd guess it was 40 or 45 years ago the family left these parts, and Matt was flying a long time before that."

Lincoln Binion can't give his version of the date because he's dead—killed indeed by Matt Sellers' blooming machine, just as so many of the Carter County people predicted.



This was the Wright brothers' first flight, in 1903. Their plane was unlike Sellers' in that his had its engine in front rather than in back, and his had a framework enclosed with linen, not open.

Ky Ky PARR Carter Co.  
H-302

HISTORY - Ky  
APP-KY/11/17  
HISTOR.



Sellers took off in his plane from the hillside near the house. A trench dug across the top of the hill formed a track along which the plane was pulled.

Even newspaper accounts of Sellers' death and encyclopedia versions of his career fail to shed much light on early years of the story. They, too, fail to list definite dates.

The New York Times of April 6, 1932, says: "Matthew B. Sellers, one of the country's leading authorities on aerodynamics, died early today at his home in Ardsley Park. He was 63."

Under "Sellers, Matthew B.," this is recorded in "Who's Who in America—1916-1918": "Engaged in research work in aerodynamics since 1900 . . . Inventor of lightest airplane in world, flying with the least horsepower. First to determine lift and drift of arched surfaces by means of a wind tunnel."

**T**HE "Dictionary of American Biography" has, in part, this to say about him: "Just when his interest in the dynamics of the air had its inception is not known, but the studies he undertook at the University of Goettingen in Germany seem to indicate that his interest in the subject came early in life. . . . Five patents were issued to him: one for aerial apparatus in 1908, one for an aeroplane in 1909, for a quadraplane in 1911 and two in 1914 for improvements in steering and running gear."

Thus in no instance is a date given for the first flight of Sellers in the plane so many Carter County people remember so vividly.

From all the confusion of matter, there emerges one definite fact: Matthew Sellers, an adopted Kentuckian, was a true pioneer in aviation.

Whether he really did piece together a successful motor-driven flying machine before the Wright brothers never will be known definitely. However, it can be established that he was experimenting in aerodynamics before the Wrights, who first flew for a few seconds in 1903 but who didn't make a flight of any distance until 1905.

Moreover, it appears that, even if his first flight followed that of the Wrights, he may have invented the first successful puller-type plane. Word of those

*Continued on Page 8*



Courier-Journal Photos by Thomas V. Miller, Jr., Except at Bottom of Page 6

Mrs. W. S. Phillips of Grayson is holding one of the last propellers Sellers made in Carter County—the type that killed Lincoln Banion. Note how closely it resembles propellers of today.



## He gave up his experiments after his helper was killed —but resumed months later

who remember the Sellers plane is that it was run by a small brass motor mounted in the front. In contrast, the first Wright planes were pushed along by an engine behind the pilot.

Sellers may also have preceded the Wrights in making an enclosed plane. His planes, according to old-timers, were linen-enclosed. The Wright planes as late as 1911 were motorized skeletons.

Like so many inventors and dreamers of revolutionary things, Matt Sellers lived before his time. Although he later received wide acclaim in his field and served on the Navy Consulting Board for Aeronautics, the early years of his career were lost.

**B**Y SIFTING through the many particles of information and piecing them together in the best possible sequence, the Sellers story goes something like this:

He was born in Baltimore in 1869, the son of Matthew B. and Annie Lewis Sellers. His father was a man of means, and he, like his brother and sister, was educated in private schools and under private tutors, including one year in Germany and another in France. Later he studied at Harvard, graduating in 1892, and at Drexel Institute.

His interest in aerodynamics, his brother Samuel says, started as a child. He used to buy penny kites and experiment with air currents. Then he began building his own larger kites and putting up balloons.

The family owned a farm near Norwood, Ga., where summers were spent. Many of the early experiments with a flying machine were done there, although there is no concrete evidence that he ever worked with anything larger than a glider.

In the late 1880's or early 1890's, the family bought a large farm south of Fireclay (now Grahn) in Carter County. A mansion was started.

Material for the big house was shipped by rail to Fireclay and then hauled by mule over little more than a path to the pine-studded hill-top location. Matthew Sellers, then in his early 20's, planned the house and did much of the work himself.

His inventive genius was shown in the things he built on the house. One of his first gadgets was a windmill to provide power for pumping grain. Later he rigged up a bell



The big, three-story house in which the Sellers family lived has been abandoned for years. It is near Grahn, which was called Fireclay when the house was built—from Sellers' own plans—about 60 years ago.

Every piece that went into the planes was turned out by his own hands on the woodworking machine he attached to his electric system. He also made barometrical instruments and the tiny two-cylinder engine that powered the plane.

The first propellers were crude things, but later models were finely molded and angled, similar in many respects to those in use today.

No one seems to know how many planes preceded the one that first remained aloft for a considerable time. That plane, to put all the word pictures of natives together and strike a compromise, was a biplane 25 to 30 feet long and with wings about

The accident so unnerved Sellers that, according to Eif Manion and others, he put the plane away and resolved never to fly again. A short time afterward, still brooding, he left Kentucky and returned to Maryland. There, after some months, he had the death plane crated up and sent to him. He then resumed his experiments.

In 1912, Sellers was appointed a member of the Aerodynamic Laboratory Committee by President Taft. Three years later he was named to the Navy Consulting Board. He was married to Miss Ethel Clark in 1918. He died in 1932 of a heart attack following a series of operations.

bought a large farm south of Fireclay (now Grahn) in Carter County. A mansion was started.

Material for the big house was shipped by rail to Fireclay and then hauled by mule over little more than a path to the pine-studded hill-top location. Matthew Sellers, then in his early 20's, planned the house and did much of the work himself.

His inventive genius was shown in the things he built for the house. One of his first gadgets was a 75-foot-high windmill to provide power for pumping water and grinding grain. Later he rigged up a bell system of interhouse communication and wired all the windows with burglar alarms.

**B**UT it was his electric-light system that caused eyes to bug out. Wires were run into every room, and drop-type bulbs—still to be seen in the house—provided the light. The Sellers home enjoyed electric lights before Ashland, the nearest large city.

Besides his other talents, he must also have been an engineer and a geologist. For he surveyed the entire farm with great care and concluded there were valuable stones in the area. In fact, he scoured his farm in search of them and at one time planned to sink a shaft to look for diamonds not far from the Little Sandy River. There is evidence that he found garnets.

In a little shed behind the big house, he slowly put together his first full-sized planes. Models found from time to time indicate he may have built several before getting one into the air.



This is the shady-lane approach to the Sellers house on a pine-studded Carter County hilltop.

he attached to his electric system. He also made barometrical instruments and the tiny two-cylinder engine that powered the plane.

The first propellers were crude things, but later models were finely molded and angled, similar in many respects to those in use today.

No one seems to know how many planes preceded the one that first remained aloft for a considerable time. That plane, to put all the word pictures of natives together and strike a compromise, was a biplane 25 to 30 feet long and with wings about the same length.

The skeleton of the craft was of bamboo poles wired together and covered with linen cloth. The motor was mounted in the nose just in front of the pilot. The sputtering, high-pitched roar of the motor could be heard for a great distance. The plane was supported on two bicycle-type wheels, with a third wheel in the rear.

The testing ground for the plane was a steep hill near the house. An ankle-deep trench was cut 50 or more yards across the top of the hill to the very edge. The plane used the trench as a sort of track in which to run while being pulled to the brink of the hill, where it would soar into the air.

Sellers was certain he could get the plane up, but he wasn't so sure he could get it back down whenever he wanted. So he kept one end of a rope tied to the plane. Linc Binion, on the ground, held the other end all the time he was in the air.

Old-timers, including Charley Manion, now caretaker at the Sellers farm and son of Eif Manion, recall how the plane would soar into the air for a considerable height, maybe 50 feet, and circle the field. Some say Sellers could stay aloft as long as he wished. When he wanted to come down, he'd do so with the help of Binion and the rope.

**T**HE death of Linc Binion provides about the only definite date in Kentucky chapters of the Sellers story. Mrs. Manion, wife of the caretaker and a niece of Binion, remembers that clearly—October 13, 1911.

Seems up to then most of the flying had been in the late afternoon. But this day Sellers decided to give his plane, on which he had been trying several new improvements, a thorough testing with a morning flight.

Sellers was at breakfast when Binion reported for work. While he finished his meal, the hired hand went out to crank up the plane. Somehow or other, the spinning propeller struck him over the left eye, killing him.

resolved never to fly again. A short time afterward, still brooding, he left Kentucky and returned to Maryland. There, after some months, he had the death plane crated up and sent to him. He then resumed his experiments.

In 1912, Sellers was appointed a member of the Aerodynamic Laboratory Committee by President Taft. Three years later he was named to the Navy Consulting Board. He was married to Miss Ethel Clark in 1918. He died in 1932 of a heart attack following a siege of pneumonia.

How many years before the death of Linc Binion—the one clear date in the early years of his experiments—Matt Sellers first made a successful flight is the lost key to the whole story. It seems certain he had flown before that time since he had patents on planes dating back to 1908.

**A**N INTERESTING, but totally unfounded, local legend has it that a man who worked closely with Sellers in the early years stole plans for the airplane and sold them to the Wrights. Their first plane, the legend goes, came from those plans.

The Sellers home, though long since abandoned, still is standing. Charley Manion lives nearby and watches over it. The workshop where the airplane took shape also is standing. Inside are still odds and ends of equipment—a propeller, a rudder or two, the radiator of a motor, some bamboo poles used in the framework, the woodworking machinery.

Residents of Grayson, the County seat, and Olive Hill, 10 miles away, can remember when the workshop was filled with pieces made for planes. Mrs. W. S. Phillips of Grayson recalls going there as recently as eight years ago and seeing a model of a plane and numerous propellers.

George Saulsberry of Olive Hill, an acquaintance of the family, says he used to see a nearly complete plane in the workshop. He also remembers seeing a two-cylinder brass engine like the one that powered the planes.

But over the years, vandals and curio seekers have carried away most of the pieces. The long-neglected house is showing signs of wear. The window shutters are sagging and flap noisily in the wind that whips through the pines on the hilltop.

If the pines and the wind could tell tales, perhaps the true story of Matthew Sellers in the early years of aviation could be established.

And perhaps an adopted Kentuckian who was years ahead of his time might be recognized as the first American to make a successful airplane flight.





**MATTHEW B. SELLERS**

*"The dream of yesterday is the hope of today and the reality of tomorrow." — R. H. Goddard*

The first Kentucky resident who dared to dream of flying — and make it a reality — came to the "land of tomorrow" from his native Baltimore. His name was Matthew B. Sellers.

He built a home for his family in Carter County, near the village of Grahn. He called it Blakemore. Nearby he built his laboratory.

#### **Home Burned, Laboratory Spared**

When Blakemore burned to the ground in November of 1974, the wooden laboratory was saved. Decades before, in this building made of sycamore, Matt Sellers improvised many of the mechanical parts he needed to make his dream come true. And those he couldn't improvise, he designed machines to manufacture.

An educated engineer, Matt took a more "scientific" approach to flying than did many other early aviators. His goal was to devise the lightest airplane possible which enabled a person to fly with a minimum amount of power. To do this, Matt realized, he must construct a propeller and wings of maximum efficiency.

#### **Pre-Tested Plane Parts**

Matt knew that, to build his plane, he not only had to put things together — he had to test them separately before assembling them to make certain that the "finished" product would perform as he wanted.

A graduate of Harvard and the Lawrence Scientific School there, Matt was capable of making the devices for testing the airplane parts. One of his most

difficult tasks was designing a testing device for the motor.

Matt was a clear-thinking man. Not only did he want to fly — he also wanted to be able to stop his plane when he wanted to.

#### **Designed Retracting Wheels**

With this goal in mind, Matt designed retracting wheels — wheels which could be drawn into the aircraft during flight. Raising the wheels would allow the runner mounted in series with them to touch the ground, thus braking the forward motion of the plane.

Today, retracting wheels — one of Matt Sellers' most significant gifts to the world of aviation — are a standard feature on all modern aircraft.

#### **Four-Winged Plane Launched**

In December of 1908, Matt made his first flight. It was the first major test of many long months of building and scientific testing.

The plane which Matt launched from the hill on which Blakemore stood had four wings, one above the other. The top wing, together with the motion of the tail section, controlled the plane.

The wings were constructed of native bamboo, covered with muslin. Matt used bicycle tires and wheels — and stretched the springs to enable him to

guide his plane. His seat was a pillow on which he sat cross-legged during flight.

Matt's first flight was "just a hop" of perhaps a hundred feet or so, according to his biographer, Edward Peck. Subsequent flights were many times longer.

Five months after his first flight — in April, 1909 — Matt applied for a patent for his plane. The patent was granted on July 11, 1911.

#### **Appointed to the "Original" NASA**

In 1912, Matt was appointed by President Taft to a commission formed to make recommendations to the President on the establishment of a national aeronautical laboratory. This group was the forerunner of today's National Aeronautics and Space Administration (NASA).

Matt built a second plane in 1925-26. He died of natural causes in 1932. His widow, since remarried, and two sons survive, although none of them lives in Kentucky.

#### **Interest in Matt's Work Rekindled**

Some 40 years after Matt's death, a present-day resident of the town of Grahn — Dee Crisman — took an active interest in Matt's life and work. Early in 1973, following his retirement, Crisman began inquiring about the possibility of making Blakemore an historical site.

#### **Reconstructing the Plane**

When Blakemore burned the following year, Crisman turned his attention to the plane itself. He found, however, that there wasn't much to turn his attention to!

Many parts of the plane had been replaced by an "improved" part through Matt's years of experimentation. And many of the original parts were made of material which would deteriorate over the years. Bamboo decays, muslin decomposes, wires rust.

About all that was left of the original plane was the propeller and — perhaps — the motor. No one knows for sure if the motor found in the laboratory was, in fact, the one from the original plane.

But Crisman was determined. He persuaded the Carter County Vocational School to undertake to reconstruct the plane, working from the patent diagrams and from a few old photographs.

#### **Bicentennial Project**

The students in the carpenter class at  
(Continued on Page 16)





implemented in 1974, with a healthy first-year enrollment of 96. The State has funded \$54,000 a year to help the first-of-its-kind program get off the ground.

Under the direction of Patrick Angel, coordinator of reclamation and mining technology and assistant professor of reclamation, the curriculum for this unique program has been geared largely toward field experience in soil, geology, and plant life.

General studies are also required for Reclamation Technology students, but the greatest emphasis is placed on engineering, chemistry and "reclamation" courses including Grasses and Legumes, Mapping and Surveying, and Water Draining and Management.

Coal companies in the area (Peabody, Pittsburgh & Midway, and Amax) are providing technical experts to instruct at M.C.C. The companies have joined forces with M.C.C., the U.S. Forestry Service, the Kentucky Reclamation Association and the State Division of Reclamation to establish a cooperative (co-op) work-study program.

The co-op program allows students to earn money and college credit while working for a coal company or a government agency. Some 80 percent of the reclamation program students participate in the co-op program, alternating semesters of classroom work with on-the-job training in the coal fields.

Coordinator Angel thinks the best way to learn is to experience a situation first-hand. As a requirement for graduating, students must take a course entitled "Practicum in Reclamation Technology." Mr. Angel describes the three-credit-hour course as being designed to "familiarize M.C.C. reclamation students with the 'practical' aspect of the reclamation profession."

During two weeks of intensive field experience, practicum students are ex-

posed to reclamation tools and equipment, the latest developments in research, the enforcement of reclamation laws, and the various methods of both area and contour mining. They participate in spoil placement with heavy equipment, grading, seedbed preparation, seedings, tree planting, liming, and fertilization of spoil and water treatment.

Two years of intensive training (and a longer period of time for co-op program students) are producing the country's first college accredited reclamation technologists. It is only fitting that this unique educational program was initiated in Kentucky, where coal is indeed a King.

## STORY AND PHOTOGRAPHS BY CHRISTINA M. FREITAG



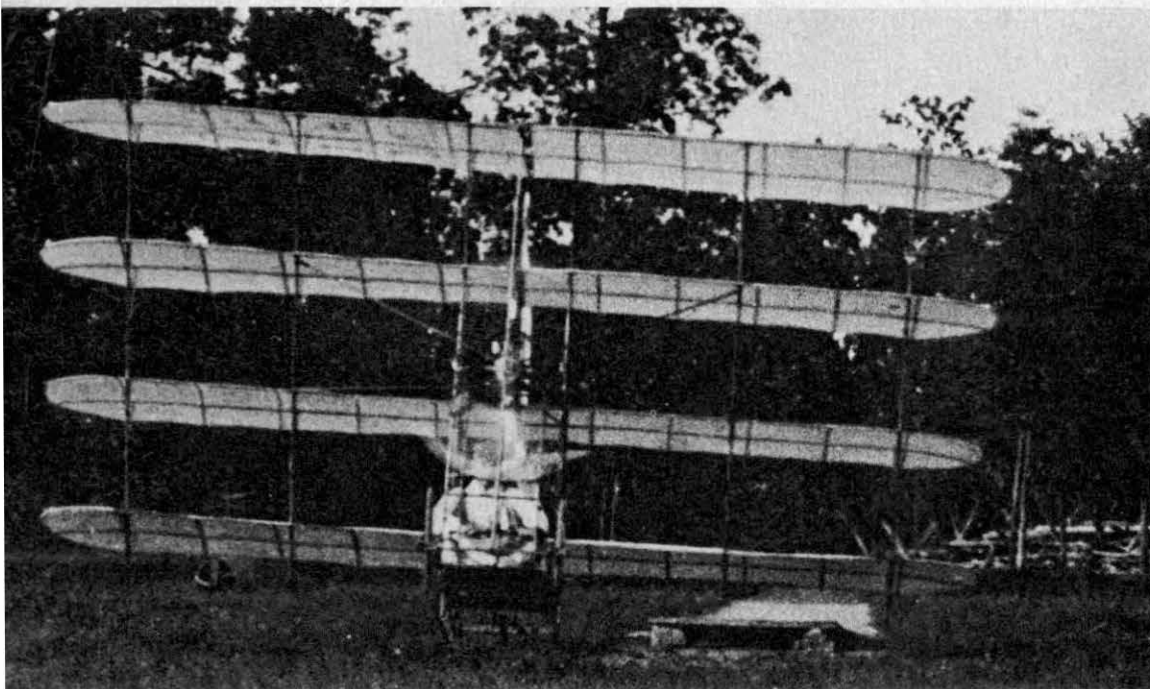
The average cost of reclamation in Kentucky is \$2,000 an acre, according to Ira Gray, Kentucky's assistant director of orphan lands.

At left, students work with trained reclamation personnel in mulching operations.



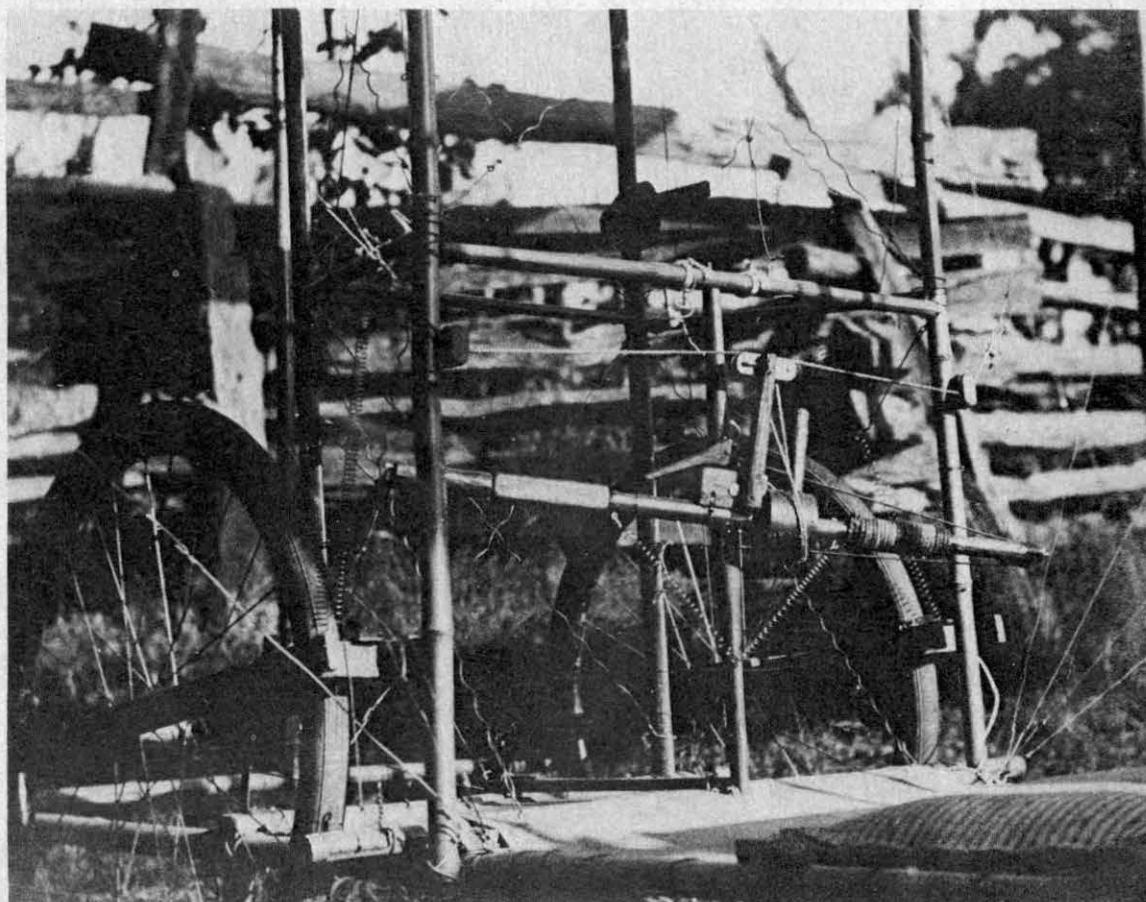
Actual participation in bulldozer placement of spoil is required for all reclamation technology students at M.C.C. At the Breckinridge Satellite Corp Training Center in Muhlenberg County, Sherry Mallory, Drakesboro, gets a lesson on operating a bulldozer.

# HEAD IN THE CLOUDS



Matt Sellers' original four-winged plane readies for take-off on the hill from which it made its maiden flight. This photo and the one below are reproductions of photos taken in the early 1900's.

When the retractable wheels Matt Sellers designed were raised, the plane's runners were lowered, becoming "brakes" for landing.



---

STORY BY  
FRAN  
MAIERHOUSER

---



## WATCH OUT, CONSUMERS:

# Tall Tales from "Little Boxes" Flow

Human nature is such that we are always looking for shortcuts, especially when it comes to trying to get "something for nothing."

At the present time, there is being sold in Kentucky a little box that will supposedly reduce your power bill. One such device is usually installed in your service entrance breaker or fuse panel for \$150 to \$200. Resultant savings on your power bill will range, according to the device's manufacturer, from 10 to 35 percent, depending upon "the power factor of your home, the power surges in your home and neighborhood, the location of your home in relation to your power company's transmission, the brownouts you are subjected to and their frequency, the age, condition and number of appliances and other electrical conveniences you have, and how many motor-driven appliances you operate at the same time."

### Additional Claims

Furthermore, the manufacturer claims that this little box will "make motors run quieter and smoother, increase the life of motors and compressors, protect against low-voltage brown-

outs that cause appliance burnouts, protect against high voltage surges, provide full protection from lightning strikes, increase the life of light bulbs, improve the performance of older electrical appliances, improve color TV reception in many households, and put you ahead if electrical rationing ever goes into effect."

The device is guaranteed for one year against defects in workmanship and material, and offers a 90-day trial with "money back guarantee." "You only risk installation costs," the manufacturer declares.

The makers of a similar item take a more cautious approach in stating what *their* little box will do. This second manufacturer offers a 7-year warranty against defects in material and workmanship, during which time the manufacturer will "replace or repair" (the unit) "without charge (exclusive of installation cost)."

In addition to these little boxes designed to be installed in your service entrance breaker or fuse panel, small cylinder-shaped gadgets which fit into a single receptacle are also being sold — devices which purportedly allow you to

save on the cost of the power used by a single appliance, such as your refrigerator or air conditioner.


### "No Such Animal. . ."

Sound too good to be true? *It is.* There is no little box or other device that can be put on your electrical system that will save you money on your power bill.

Furthermore, the units just discussed have not been listed by Underwriters Laboratories or another recognized testing laboratory as required by the National Electrical Code and by code enforcement agencies. The installation of such a device may be against the law, depending upon your locality.

Results of tests conducted by competent, responsible organizations show that the claims made by manufacturers of these units concerning reduction of power bills *simply aren't true.*

If you are approached by someone selling such an item, get the name of that person and the brand name of the product, and report this information to your cooperative immediately.

Remember the often used but always timely warning: If it sounds too good to be true, it usually is. 

## HOWDY NEIGHBORS



By  
**BARNEY ARNOLD**  
WHAS  
Farm  
Program  
Director


## A Peek Ahead, A Look Behind

We're getting down to State Fair time and we'll probably have something to say about that big event in our next column. In the meantime, we hope you'll find time to drop by and see us in our WHAS broadcast booth in the east wing.

Looking back to June . . . it was our pleasure and privilege to serve Kentucky as June Dairy Month chairman, a detail that took us over many miles and into a number of communities. The dairy festivals took many forms. Some of them were merely civic club luncheons . . . and that's good, of course . . . but many were day-long affairs, complete with dairy cattle shows, dairy princess contests, dairy dolls and cow milking contests. Each event, large or small, served to call attention to this extremely viable part of agriculture and the part it plays in our economy. Sponsored by the American Dairy Association, June Dairy Month is one way we can toot our horn without being too obvious about it.

Speaking of dairy farms . . . we visited a couple of outstanding examples on July 8, when the state forage-dairy field day was staged in Shelby County. We saw one operation where 50 cows were being milked on 147 acres . . . another where 420 cows were being milked and replacements maintained on 800 acres. The first farm represents about an average sized Kentucky dairy farm; the second is probably the largest dairy operation in the state — and they're just across the road from each other. But one consistent factor was obvious in both: they utilize forage to the best advantage.

The smaller farm used pasture and fed hay in the big round bales. The larger one was on a dry lot feeding program but had seven silos to fill with corn, alfalfa and small grain.

We continue to stress having a good forage program in Kentucky as one of the more economical ways of handling livestock, be it beef or dairy cattle. 

# HEAD IN THE CLOUDS

(Continued from Page 8)

Carter County Vocational School undertook the challenging task as one of their special Bicentennial projects. They worked under the supervision of Sherman Clark.

One of the first hurdles was finding bamboo for the wings — but Crisman located a patch in Carter County, probably of the same type that Matt Sellers had used.

Unbleached muslin is still available on the market — but at a higher cost, we're sure, than Matt Sellers paid. And the spruce wood from which the wing ribs and runner structure were fashioned is still readily available.

## Plane on Parade

It was with pride that the ten teenagers who reconstructed the plane watched it take top honors in the two parades in which it was displayed.

The reconstructed aircraft made its first appearance during the "Memory Days" parade held the week before Memorial Day in Grayson. Then, on July 3, the plane again took top honors during the Bicentennial Parade at Olive Hill.

## What of the Future?

Today the plane is stored at the Carter County Vocational School. A move is underway to raise funds to build a proper museum to house it and protect it from the elements — a museum which will perhaps be located near the vocational school.

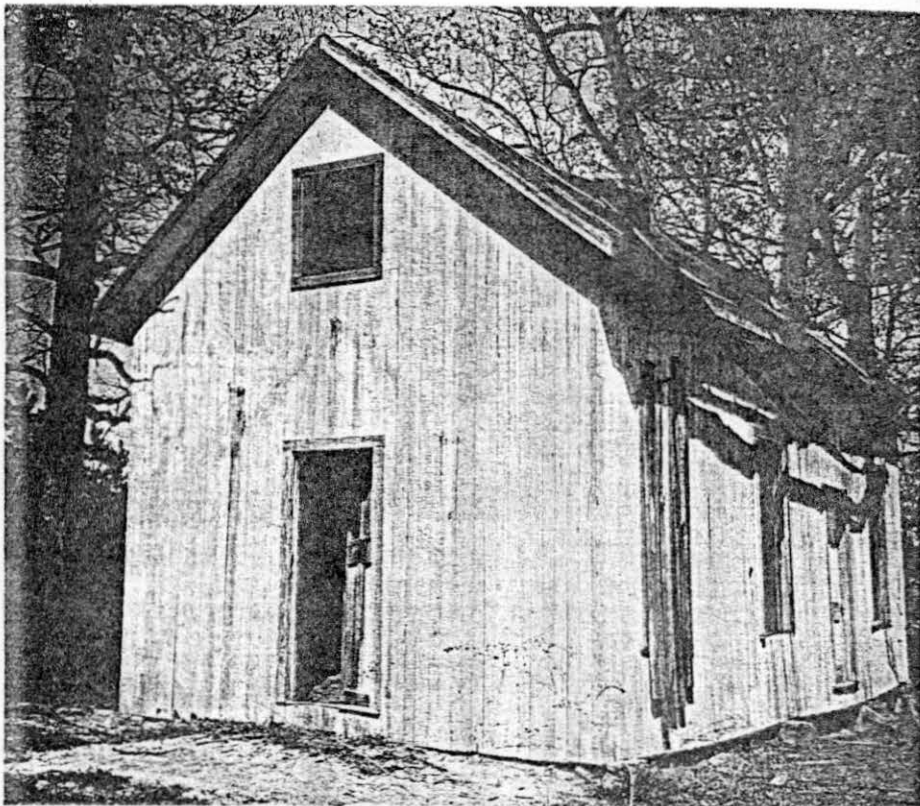
If that fund-raising effort isn't successful, there's an out-of-state museum eager to take the plane. It's the Bradley Air Museum in Windsor Locks, Connecticut, which already holds Matt Sellers' wooden laboratory. The wooden building was taken apart, board-by-board, and sent to the museum for re-assembly.

As for the original propeller and other relics of Matt Sellers' flying days, they're on display at the Smithsonian

Institute's National Air and Space Museum in Washington, D.C.

But we'd hate to see the plane leave Kentucky, wouldn't we? Let's hope we can help to keep it here.

*NOTE: The author wishes to express her appreciation for the assistance she received in research for this article from Dee Crisman, E. J. Fannin (Carter County Vocational School Principal), and Edward Peck (Matthew B. Sellers' biographer).*



In this laboratory made of sycamore, Matt Sellers made his dream of flying come true. The laboratory has been dismantled and transported to the Bradley Air Museum in Connecticut for reassembly and exhibition.

# Help Wanted: Washerwoman

(Continued from Page 14)

You know, I'm not sure I want to hire you, after all. You'll take a lot of my time — from what you've said.

## Sort As You Soil

"Not so much, if you and your family will develop some simple habits. Take sorting the clothes, for example. After that experience your neighbor had, HER family now has learned to put clothes which get washed alike into separate baskets. I guess they preferred that to ruined garments!"

Still, choosing water temperatures, adding cleaning aids, and, I suppose, telling you how hard you have to scrub...

"I'm glad you brought that up! That's so important. But all those things

take only minutes. Then I'll work happily as long as you provide water and wages."

## No "Bonus" Required

That "hiring" fee — it's pretty high. And then to pay wages ever after...

"But you'll OWN me — body and 'soul' — er, I mean, MOTOR! And my wages are so small! Of course, electricity IS going up — but think of the back-aches I save. To say nothing of the convenience of my working day and night right in your home."

Still, you're pretty expensive — with all those special choices.

"Well, I do have some cousins who give you fewer choices to make. However, you must understand that they can't give you the kind of wash that I

can. And you'd spend a little more time with them — following the instructions for washing sewn in your clothing."

## Who Is Today's Washerwoman?

Well, let me take your name and address. I'll want to discuss this with my family. Then I'll get back to you. You said your name was...

"Automatic Washer, ma'am. That's capital A and capital W. Shall I spell it?"

No need. And your address?

"I myself move around a lot. But you'll find a number of us staying at your local appliance store. Just stop in and visit any time. And if you decide to 'hire' one of us, the boys at the store will bring us out to your home and help us get settled. Hope to see you soon."