



DEAN OF WATCHMAKERS . . . William H. Samelius, watchmaker for more than half a century, is shown inspecting a "Lighthouse" clock, one of the novelties designed by his students. In the background can be seen his personal collection of ancient timepieces.

IN THESE UNITED STATES

Time Means Everything To Dean of Watchmakers

ELGIN, Ill.—Somewhere in the United States there may exist an untutored and unknown genius of Joblike patience who, after months of painstaking effort, could put together a watch that would run.

But the odds are just about one-million-to-one that it would fall far short of the performance demanded of fine watches today, in the opinion of William H. Samelius, director of Elgin Watchmakers college.

Samelius ought to know. The dean of American fine watchmakers came by his knowledge honestly. His father was the royal watchmaker of Sweden, his mother an English school teacher when he was born at Belfast, Ireland. He came to America as a lad in 1881. Today he's a life member of eight or more state horological associations and in constant demand as a lecturer.

Graduates 2,500 Jewelers Samelius says he has made watches for "50 years plus." And for 26 of those years he has directed the study courses of Elgin Watchmakers college, which has graduated more than 2,500 men and women now engaged in the jewelry business in all 48 states and in foreign countries. Many own their own watch repair and jewelry shops.

"Our students learn that the best watches must be within a limited tolerance of time, fast or slow, before they are released from the factory," Samelius says. "They learn to maintain tolerances of .0001 of an inch to fit parts into precision watch movements. They master all the individual manufacturing operations necessary to restore a watch to its timekeeping ability."

These are no more than statistics until it is known that one ten-thousandth of an inch is the size of a human hair after it has been split the long way 30 times—that a watch ticks five times per second, or 432,000 times a day, so that if it loses or gains a second it has added or dropped only five ticks in 432,000.

Students are taught, too, to work with roller jewels so small that 4,690,000 of them weigh a pound; to use screws so tiny that 20,000 of them no more than fill an ordinary sewing thimble. Yet each screw has a perfect screw thread and the head of it is perfectly slotted.

Course Extends Year Learning to be a watchmaker requires from 11 to 14 months, Samelius says, depending entirely on the adaptability of the student. Like all the classes since 1920, this year's group came chiefly from small cities and towns. On Registrar Schmidt's books are home community addresses such as Rochester, N. H.; La Porte, Ind.; Northwood, Ia.; Waldo, Fla.; the atomic bomb town of Oak Ridge, Tenn.; Ellensburg, Wash., and Artesia, N. M.

Extending a feminine influence, first evidenced in 1938, were five women grads in 1946. One of them, according to Samelius, turned in work that was unsurpassed by any student.

"A woman expert on watches," Samelius added in his distinctive style, "is apt to become so solidly established in a growing business that she can afford a husband."

As adept as women students have proved, they have failed so far to invade one field open to them for it is male students rather than women who have designed and constructed watches and hall

clocks while completing their college course.

Make Unique Clocks A nine-dialed clock which shines like a lighthouse was constructed by Student William Geohagen. Driven by an electric motor, the dials indicate correct time simultaneously in Bombay, London, Hawaii, San Francisco, Yokohama, Shanghai, New York, Moscow and Elgin.

Geohagen's design remained at the college to take its place alongside a celestial clock, which exhibits a rising sun or moon at the proper hours; a program clock, which signals automatically the beginning and end of watchmakers' classes, and many other unusual timepieces.

Flying Repair Ship There have been few students who have equalled the unusual record of James Clemans, a young man from Alaska who was graduated early in 1946. He and his wife purchased a flying boat large enough for the installation of a watchmaker's bench to provide a flying watch repair shop.

Clemans planned to make his business territory the group of settlements that are within a 50-mile air radius of isolated Naknek on Bristol Bay. They are identified by such names as Dillingham, Ekegig, Ugashik Kogging, Snag Point, Clark Point, and Kinknik. All ar-fishing villages with seasonal financial ups and downs.

At last reports the Clemans duo was deeply engaged in the flying jewelry repair business. Clemans, it should be explained, feels indebted to Mrs. Clemans for the plan.



CHINESE WAY OF WEIGHING . . . A male student nurse, receiving training from the Chinese Relief and Rehabilitation administration, weighs a husky Chinese youngster at a welfare station. Not long ago this baby was undernourished.

Attending Prizefights Urged as Crime Deterrent

PHILADELPHIA—Attendance at prizefights and other sport events was suggested by Dr. Gregory Zilboorg, psychiatrist, as a release for war-born aggressiveness.

The psychiatrist maintains that aggressiveness and a tendency toward violence has resulted from the war, not only among combatants but also among those on the home front. Maintaining that psychiatrists

are "too prone to treat all these conditions of aggressiveness as outright accidents of mental illness, whereas in many cases there is no mental illness involved," Dr. Zilboorg insists it is necessary to devise methods for "harnessing the aggression in the right direction."

He maintained that the Lindbergh baby kidnaping and rise of gangsterism in the 20s were direct results of the first World War.

SEVEN FAT YEARS

High Agricultural Production Reverses Egyptian Chronicle

Experience in the United States has run just contrary to the Egyptian chronicle of the seven lean years following the seven fat years of the Pharaoh's dream which Joseph interpreted. Here the seven "fat" years of high production have followed instead of preceded the seven "lean" years (1933-39).

However, as a result of the change in demand—both national and world-wide—the farm situation in the "lean" years was characterized by a threatening and persistent "surplus" problem. In the "fat" years, the parade of record-breaking crops has not been able to match the war-created requirements, and "shortages" have accompanied bumper crops.

Production Increases These contrasts appear in department of agriculture tabulations of crop production. By using crop report figures for the seven fat years and official estimates for previous years, simple addition shows a production of more than 21 billion bushels of corn for the seven years of 1940 to 1946. For

the seven previous years the "lean" production was 15.4 billion bushels.

For wheat, the figures show almost 7 billion bushels in the seven fat years and 4.8 billions in the lean period. For oats, the record stands at more than 9 billion bushels compared with 6.5 billion.

Two Equals Three The record reveals that for these crops, production in two "fat" years has been nearly equal to three of the "lean" years. And the United States has experienced seven successive fat years of good crops.

Crop experts agree that the weather is a principal item. They mention as other elements in the picture: Hard work and planning by farmers, improved machinery and better cultural practices that include such items as use of fertilizer, hybrid corn and improved varieties of other crops, and control of erosion. From the standpoint of human nutrition, substitution of machines for horses as farm power has released much acreage for food growing.

Legless Civilian Helps Vets Get 'Back on Feet'

HELENA, Mont.—Battle-clouds of World War II have cleared but one battle—the fight to rehabilitate crippled veterans—continues. Among the leaders in this struggle is Joe M. Miller, 21, himself legless, who never wore a uniform, but who is using his own bitter experiences as the basis for helping legless veterans to overcome their war-received handicaps.

Taking cognizance of Miller's work among amputees, the war department awarded him a commendation of exceptional civilian service in a ceremony at Washington. In the citation, presented by Maj. Gen. Norman T. Kirk, surgeon general, Miller was commended for "his untiring activity on behalf of amputee patients, his kindly assistance and continuous demonstration of courage and skill."

Loses Legs at 12 When he was 12 years of age, Miller, son of Mr. and Mrs. M. J. Miller of Helena, lost both legs in a train accident. Hospitalized for two years, he continued his studies and received his grammar school diploma while still confined in the hospital.

Painfully mastering the use of artificial limbs after grueling hours of practice, Miller finally returned home. In high school he was able to dance, ride horseback, swim, drive automobiles and ski.

A leader in school, he served as class president, school cheerleader and chairman of the school's first scrap drive.

Takes Hospital Job After graduation in 1943, Joe worked as a radio announcer and later enrolled at Montana State college at Bozeman. There he decided a 4-F draft classification shouldn't keep him from helping the war effort. He wrote a letter to President Roosevelt, which resulted in an interview at the army's Bushnell General hospital Brigham City, Utah, where he accepted a civil service job in March 1944 as an orthopedic mechanic. He helped design artificial limbs and soon expanded his activities to the introduction of swimming, horseback riding, skiing and automobile driving to programs for legless veterans.

Expecting Guests? Just Blow Up Bed

Novel solution of the guest problem in this day of crowded housing conditions is the new mattress-bed, which is inflated for sleeping and can be stowed away on a closet shelf.

The mattress, which is made of cotton coated with neoprene, is laid on the floor and blown up with a vacuum cleaner blower attachment. It also can be blown up with a hand pump or—in case of emergency—by mouth.

Although the 11-pound mattress and pillow are one piece, they are inflated separately to permit adjustment of each section to the desire of the sleeper.

If the mattress-bed becomes soiled from an outdoor trip, it can be cleaned with the garden hose or washed in the bathtub.

Old Refrigerator Car Converted into House

MICHIGAN CITY, Ind.—Home is where you find it, contends Mr. and Mrs. Ralph Hanson, and they have found theirs in an abandoned railroad refrigerator car. The car, with trucks removed, has been installed over a previously dug basement. Finished with shingles, it has a living room built on in front and is a complete two-bedroom residence.

"Off We Go" AVIATION NOTES SUPPORT AIR SUPREMACY

The day when farm folk shaded their eyes and looked up when they heard a plane flying over and then went back to their hoeing is gone forever. Aviation no longer is a luxury business; on the contrary, it's really "down to earth."

Evidence of that fact comes in the report that three of the largest farm organizations in the nation have gone on record urging the government to "spread aviation all over" and to see to it that some of the taxpayers' money goes into advancement of aviation.

Typical is the comment of Edward A. O'Neal, Farm Bureau president: "The United States farmer has a deep interest in aeronautical research and he wants it continued at a high level, first because he realizes that this country must maintain its leadership in aerial technology for security reasons, and second because he will use air transport increasingly for travel and shipping certain commodities."

Rural areas are expected to account for more than 60 per cent of future sales of small aircraft, it is disclosed in a recent national survey. Basis for the prediction is the wide utility of aircraft in the agricultural industry.

SLOW PARACHUTE SPEED

New devices introduced by army air forces include a "sand bullet," designed to slow the fall of parachuting troops and supplies and to eliminate landing hazards.

The "bullet" consists of a U-shaped tube with an explosive charge in the center and a charge of sand in each end. It is set off just before the equipment lands. Recoil of the explosion almost stops the heaviest loads, the AAF said, adding that the rest of the drop is like "falling off a chair."

Another new device for slowing descent of a parachute is the "bare charge" unit, which has been tested successfully at Wright Field. It consists of a small explosive charge placed between heavy falling loads and their parachutes. The charge is set off several feet from the ground, the resultant shock wave of the blast exerting a tremendous upward pressure against the underside of the inflated chute, thus working like a brake.



TEST MODEL . . . The Bendix helicopter, Model K, has been flying for more than a year, gathering data for the larger four-passenger machines now under construction.

CHINA SEEKS PLANES

In an effort to expand its operations to Tokyo and Manila, China Air Transport corporation is attempting to purchase surplus American airplanes and equipment being sold in the Philippines. The company's main objective is to secure the 150 American transport planes which operated over the "Hump" during the war. The transports now are grounded in Shanghai, with 70 of them in flying condition.



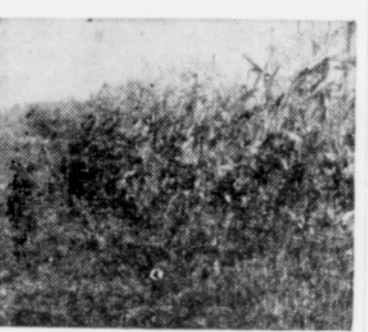
Cover Crops Reduce Soil Erosion Losses Research Tests Show Four Main Advantages

How cover crops seeded in corn and other row crops could help farmers fight erosion, build up the soil's organic matter and add to the nitrogen supply, is indicated in studies by research men of Iowa agricultural experiment station.

Four major advantages are cited:

- 1. Cover crops protect the soil from August to May. One-fourth of the annual soil loss occurs during this period.
2. Well-fertilized legumes and grasses add organic matter to the soil that helps resist erosion during the May and June period. This is the time when one-half of the annual soil losses occur.
3. Cover crops add nitrogen to the soil, especially when legumes are a part or all of the mixture.
4. The yield of corn will be slightly increased in the year following the seeding of cover crops.

Research workers have developed a plan that licks the problem of seeding the cover crops. Just before

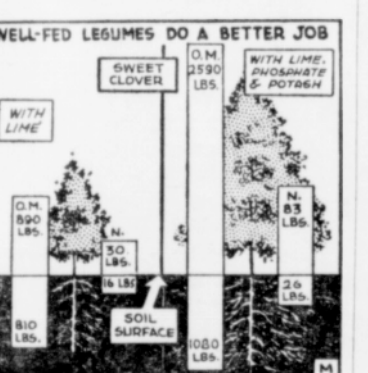


Good field of corn secured from proper plant food.

laying by the corn, they broadcast the seed with an endgate seeder. Weedeaters are attached to the cultivator to help cover the seed and better growth results.

Clover and Alfalfa Need Limed, Fertilized Soil

Sweet clover and alfalfa will do a good job of increasing the soil's supply of nitrogen and vitally needed organic matter if they are well fed. Legumes are heavy eaters of phosphate and potash. They thrive best in a soil that has been limed to correct acidity and to furnish calcium.



When legumes get a full quota of needed nutrients they will produce top results. That was shown in tests with sweet clover at the Newton soil experiment field in Illinois.

The accompanying chart summarizes results. Sweet clover grown on soil that had been limed and fertilized with phosphate and potash produced 63 pounds more nitrogen and a ton more organic matter per acre than that grown on soil that had received only lime. Another advantage of well-fed legumes comes in improved soil tilth.

The sturdy tap roots of well-fed sweet clover and alfalfa drive through plow sole compactions and push mineralized organic matter deep into the soil. They open tight soil to air and moisture. The added organic matter and better tilth 18 to 25 inches deep enable crops following in the rotation to make more efficient use of the plant food available in the soil.

Increased Production Of Butterfat Required

Dairy farmers whose average annual production per cow is only 6,000 pounds are operating on a bare subsistence figure, it is pointed out by Howard O. Selby, general manager of the United Farmers of New England. It is not unreasonable to suggest that an annual production per cow of 7,500 pounds would be possible and that it would yield an economic level more nearly in line with other groups in the nation, he adds.

Cleanliness Emphasized In Treating of Wounds

Horses under treatment do much better at pasture than in stables, if the weather is suitable. If sick horses must be stabled, quarters should be clean and well-ventilated. Be gentle in dressing wounds, clip closely or shave the hair around the wound and make sure that no discharge from around the edges is carried into the wound. Proper drainage of the wound must be assured.

Outfoxing a Fox

A businessman came home one night looking very weary. "You look tired, dear," said his wife sympathetically. "Have you had a very busy day at the office?" "Well, not exactly; but you see, the office boy came in with the old story of going to his grandmother's funeral, so I decided to teach him a lesson and accompany him." "Of course, you found it was a football match?" "No such luck," he said with a rueful grin. "It was his grandmother's funeral!"

CUCKOO IN REVERSE



Husband: "When anything goes wrong around the house, I just get busy and fix it." Wife: "Yeah? Since you fixed the clock, the cuckoo bird's out and asks: 'What time is it?'"

A REAL DIPLOMAT



"Pa," said Hector, looking from the book he was reading, "what is meant by 'diplomatic phraseology'?" "Well," replied Pa, "if you were to say to a homely girl, 'Your face would stop a clock,' that would be stupidity, but if you said to her, 'When I look into your eyes, time stands still,' that would be diplomatic phraseology!"

Surprise for Mom!

Miss Smith, young Joey's piano teacher, was having considerable trouble trying to get him to practice his exercises. Finally turning to him in despair, she said, "Joey, don't you want to be a great pianist?" "Ah, no," Joey spoke up. "These music lessons are just a waste of money. I'm going to be a prizefighter when I grow up. But I'm keeping it from Mom as a surprise."

Marital Bliss

Wife: "I looked over the rest of the men at the party and I was so glad that I was married to you." Husband: "Thanks, Sweetheart!" Wife: "It's such a comfort to know that you have a husband that no other woman will try to steal."



Doctor: "Your husband must have rest and quiet. Here's a sleeping powder." Wife: "When do I give it to him?" Doctor: "Don't give it to him. Take it yourself!"

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