

## Welded Tanker

A new type of ocean-going craft has been launched.

The first rivetless cargo vessel is now riding the waves in Charleston harbor awaiting her service tests, after which she will begin a life of usefulness as a 2,500-barrel oil tanker.

Rivetless scows and rivetless yachts have been made, as well as several vessels combining both riveting and welding, but never before a completely welded, ocean-going carrier. The ship is 120 feet in length, 23 feet in width and has a ten-foot draft.

The arc welding was done under a new system of dove-tailed, lock-notched plates, developed by Richard F. Smith, a young ship designer and inventor. It effects a saving of 20 per cent. in weight and 25 per cent. in cost compared with riveted vessels.

Only 8,000 pounds of welding wire were used instead of 85,000 pounds of rivets. The cargo capacity is also greater because of the absence of rivets, bolts and angles. Nine workmen were employed to operate the acetylene cutting torch and electric arc welding machine used.

The vessel was built by the Charleston Dry Dock and Machine Company for the Texas Oil Company.

*Engineering*

*Science News-Letter, March 1, 1930*

## Passenger Pigeon

The passenger pigeon, long believed to be totally extinct, has been reported alive in the wilds of northern Michigan.

Prof. Philip Hadley, bacteriologist at the University of Michigan, has notified the journal, *Science*, that while hunting in an uninhabited wilderness in the northern peninsula of Michigan, his companion, familiar with the country, pointed out a bird which he declared to be a passenger pigeon, such as he had seen in vast numbers in his younger days. As Prof. Hadley looked, the bird took flight, and all he could see was its pigeon-like form and its pointed tail.

If the Michigan birds actually turn out to be passenger pigeons, it will be like a return of the dead. Passenger pigeons were once probably the most numerous birds in America, darkening the sky with their migrating clouds as the bison herds darkened the plains. But butcher-like hunting and the destruction of the Eastern forests brought them to extinction during the last third of the nineteenth century. The last specimen known to be alive died in a zoological park in 1914.

Dr. Theodore Palmer of the U. S.

Biological Survey here is somewhat skeptical of all reports of the survival of passenger pigeons.

"We get such reports frequently," he said, "but we have never been able to authenticate any of them. Some people who used to know the passenger pigeon now sometimes mistake the plover for it when they see one in flight. The plover is about the same size as a pigeon, has a pointed tail and flies in much the same manner.

"People also sometimes report the common mourning dove of the East, and the band-tailed pigeon of the Pacific Coast, as the passenger pigeon, for they do belong to the same family. But a sure distinguishing mark in both cases is the square tail, as contrasted with the pointed tail of the passenger pigeon."

*Ornithology*

*Science News-Letter, March 1, 1930*

## Safety Film

In spite of the example in the Cleveland Clinic disaster of the danger of fire and explosion from stored X-ray nitrate base films, many communities are still as liable to such a calamity as they were before, Dr. P. F. Butler, radiologist at the Boston City Hospital, warned the Congress on Medical Education of the American Medical Association.

The safe acetate base film is no more dangerous than so much office stationery, Dr. Butler said. It costs about 20 per cent. more than the nitrate film, but the added expense is good insurance, he observed.

*Photography—Medicine*

*Science News-Letter, March 1, 1930*

## Another Record

Official recognition by the National Aeronautic Association and the Federation Aeronautique Internationale, of Paris, of the feat of Test Pilot D. S. Zimmerley in reaching an altitude of 26,900 feet or greater at St. Louis, Mo., Sunday, Feb. 16, which is expected within a short time, will bring to America her second world record in the light airplane class.

The latest official list of world and American air records published Jan. 1, 1930, by the Contest Committee of the National Association gives America only three places in the light airplane class, and two of these will soon be world records, both held by Pilot Zimmerley. Apparently sufficient interest has not been aroused in this country in these events even to prompt qualifications for the American records.

Pilot Zimmerley's recent achievement will doubtless bring him the

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world altitude record in the third category of the light airplane class, which means that his plane was a single seater weighing between 440 and 771 pounds empty. He also holds the world distance record in this class, which he made on July 17, 1929, by flying from Brownsville, Texas, to Winnipeg, Canada, a distance of 1650 miles.

The only other U. S. record listed is in the first category, for two seaters weighing less than 881 pounds empty. This American record of 18,543 feet is held by Willfred G. Moore. The second category in the light plane class is for single seaters weighing less than 440 pounds. No American records are listed.

*Aviation*

*Science News-Letter, March 1, 1930*

## Eagle Protected

The American eagle will hereafter be entitled to life, liberty and the pursuit of happiness, under the protectorate of the United States of America, if a bill reported to the Senate by the Agricultural Committee and now on the calendar is passed by Congress.

Killing, capturing, possessing, offering for sale or selling, purchasing, or shipping this eagle, "the emblem of the United States", will be forbidden "except for scientific, propagating, or exhibition purposes, or in defense of wild life or agriculture."

Any interference with the eagle's nests or eggs is also forbidden.

The maximum penalty carried in the bill for crimes against the bald eagle is one hundred dollars fine or sixty days imprisonment or both.

*Ornithology*

*Science News-Letter, March 1, 1930*

## Rubber Experiments

The U. S. Department of Agriculture is watching the Edison-Ford goldenrod rubber experiments with interest, but is not carrying on any similar work of its own, officials stated. The work is still in the non-commercial stage, and farmers are not being encouraged to figure on putting in a crop of goldenrod instead of corn or cotton next spring.

That Mr. Edison is really in earnest about finding some native plant that may serve as a source of home-grown rubber, at least in emergencies, is evidenced by the fact that he had a well-known New York botanist look over a vast number of plants. Over

## SCIENCE FIELDS

1,200 potential rubber-bearers were examined and identified by this worker before Mr. Edison settled on the one species of goldenrod that is now engaging his attention.

Of the eighty or so distinct species in the goldenrod genus, only one has been selected as being the most promising of results in rubber. It is known to botanists as *Solidago leavenworthii*, and its range is restricted to a comparatively limited area in the Southeast. It would probably grow well over a much larger territory, however, if it should prove profitable as a crop plant.

Mr. Edison has informed the Department of Agriculture that even within the limits of this one species there is a wide fluctuation in rubber content. One lot of plants may yield as little as one-half of one per cent. on a dry weight basis, another as much as six per cent. The problem then becomes one of selecting the best strain and endeavoring to improve it by breeding.

If goldenrod cultivation becomes commercially profitable, its propagation will not offer any serious difficulties. Almost all the species are perennials, sprouting freely from slender underground runners, and these rootstocks can be cut up in pieces to plant, like potatoes. Seed need not be used at all. In case a specially desirable strain of goldenrod should be developed, this vegetative propagation would be an advantage, for propagation by seed would permit such a hybrid to revert to its lower-grade ancestral condition, whereas planting by cuttings would keep it up to grade.

*Chemistry*  
*Science News-Letter, March 1, 1930*

### Standard Drugs

If physicians would prescribe standard drugs instead of proprietary drugs for their patients in hospitals, they would help to cut the cost of hospital care for the patients, Dr. Ernest E. Irons, dean of Rush Medical College of the University of Chicago, advised the Congress on Medical Education and Hospitals.

Proprietary drugs are nearly always more expensive and yet no more effective. If a better product is sold under a trade name, the specifications of that brand may be justified, but most of the trade-marked brands comply only with the fixed minimum standards of the U. S. Pharmacopoeia,

William Gray, pharmacist of the Presbyterian Hospital in Chicago, explained to the same gathering. The prescribing of many brands of the same drugs causes duplication of stock and ties up money that might be used to better advantage. He named a number of drugs which under copyrighted names sell for from two to nine times as much as under their official titles.

"The shelves in some hospital pharmacies remind one of the exhibits of proprietary medicines in a chain-drug-soda-fountain-lunchroom," Dr. Irons declared.

A serious result of using drugs with widely advertised names is that patients tend to continue to use them without medical advice. Many drugs that are safe to use for short periods are dangerous if used in large doses over long periods, Dr. Irons pointed out. He told of one drug which in a number of cases had caused fatal damage to the liver when patients had taken it on their own responsibility after leaving the hospital.

*Medicine—Pharmacy*  
*Science News-Letter, March 1, 1930*

### Fruit Trees Attacked

California fruit trees have escaped attacks of the Mediterranean fruit fly, but they are now menaced with danger of root rot, Dr. Karl F. Kellerman of the U. S. Department of Agriculture explained to the House Committee on Appropriations.

This disease, which has hitherto been most damaging to cotton in Texas, has recently been discovered in the Department's experimental date garden at Indio, California.

It apparently does not affect citrus fruit trees, but rots the roots of such trees as peach, almond and pistachio, and any of the deciduous fruit trees.

California, which is on the verge of becoming an extensive cotton growing state, is alarmed both on account of her fruit trees and her cotton.

It is believed that nursery stock from Texas may have brought the root rot to the California experimental station, and government workers believe they can prevent its spread in California if they soak five acres of the experimental farm with disinfectant. The five acre tract affected is now isolated from the rest of the farm with an earth and oil barrier.

In Texas, where the fungus is widespread, no satisfactory method of treatment has yet been found which cotton growers can apply, though governmental and state agencies are constantly working on the problem.

*Mycology*  
*Science News-Letter, March 1, 1930*

### "Talkie" Laboratory

Completely equipped for the taking and finishing of "talkie" films, a new sound picture laboratory of the Bell Telephone Laboratories is now in use. By duplicating the conditions met with in actual practice, it is expected that further improvements in sound motion picture technique will be made.

The sound stage provides a floor space of 70 by 49 feet, and is fully connected for lights, microphones, camera motors and all the other necessary accessories. At one end is a monitoring booth, where the operator can regulate the sound from each of the microphones. This is on a balcony, and opens into a large monitoring room, where full sized loud speakers reproduce the sounds as they are recorded, and also provide for the "play-back" from one of the records immediately after it is recorded, for the benefit of the director and actors. A projection booth at one end of the sound stage, just below the monitoring booth, provides for recording a musical or sound accompaniment to silent pictures.

Full equipment is provided for recording on either wax records or film, and for developing and printing the film after exposure. A projection room with standard projection and reproducing equipment permits viewing of the films. Air conditioning equipment makes the best atmospheric conditions in all rooms.

*Photography*  
*Science News-Letter, March 1, 1930*

### Thumb Sucking

If all the little girls and all the little boys who suck their thumbs or bite their finger nails could be lined up in the favorite manner of statisticians, the little girls would make a much longer line than the little boys.

This greater frequency of finger-in-the-mouth habits among girls was reported by Dr. Willard C. Olson, speaking before the American Orthopsychiatric Association. Dr. Olson studied children in nursery schools and primary grades in order to measure the occurrence of oral habits among normal boys and girls.

Finger-nail-biting and thumb-sucking have a tendency to run in families. Dr. Olson found that "members of a family resemble each other more closely with respect to oral habits than persons selected at random."

In general, the underweight child will have more oral habits than the normal child at all ages, he stated.

*Mental Hygiene*  
*Science News-Letter, March 1, 1930*