

Airplanes Spy Out Hidden Fish on Coast

Schools That Escape the Eye in Crow's Nest Readily Seen From Plane.

USE IN CATCHES IS SHOWN

Flight Made by Navy Craft Bares Worth as Locator and Time Saver—Act as Guide to Steamers.

New York.—A new use for airplanes had been found. Schools of fish for which the fishing fleets along the coast may search vainly for days can be detected from a seaplane, according to a report by W. W. Welsh of the bureau of fisheries.

The report of Mr. Welsh followed a trip he made in a naval seaplane from the Cape May naval air station. The flight was made at from 500 to 1,000 feet and at a speed of 70 miles an hour. At the time of the flight no schooling fish were breaking water on the surface, and none could be seen from the crow's nest of a vessel or from fishing piers.

"The plane ascended rapidly to about 800 feet, and most of the trip was made at that altitude," Mr. Welsh reported. "Few schools of fish were seen at first, but as my eye grew accustomed to the conditions many small schools of menhaden were observed, all moving at some depth, and none of them breaking water. Some schools were so near the surface that they appeared as a reddish brown granular mass, ameboid in character and changing form constantly.

Large Schools Observed. "Deeper schools had the appearance of large masses of sunken gulfweed, and others were so deep that they could be distinguished chiefly by the shadow they caused on the suspended particles in the water. From a comparison with other objects seen at known depths it is estimated that the depth of the schools varied from about two feet to ten feet, or possibly more.

"One school of silver fish was observed breaking water. Those were possibly weakfish, certainly not menhaden, as they lacked the characteristic color of the latter. A school of porpoises was clearly seen and could be followed under water.

The most evident opportunity for the practical use of aircraft in the commercial fisheries at the present time lies in their employment as scouts for the purse-seine fishermen, in the pursuit of such species as menhaden, mackerel, bluefish, bluebacks, kyacks and other schooling fish. In the case of the spring mackerel fishery it is believed that the use of aircraft would save much time in locating the fish upon their first appearance and in enabling the fishermen to keep in touch with the fish as they appeared farther north. The chief service rendered would be notification of fishermen of the general vicinity of the schools and it would require actual trial and practice to determine how much could be done in directing the fishing vessels to particular schools by means of radio-telephone or other methods of signaling.

Most Promising Field. "It would appear that the menhaden fishery offers the most promising field for experiment in this direction. In the case of a region like the mouth of Chesapeake bay, where there are large menhaden interests, and where there is a naval air station conveniently located, the conditions would seem to be excellent for the development of tactics in the use of aircraft to assist fishing operations. The benefit to the fishing fleet would be in time and fuel saved in the searching for fish and in the concentration of effort on large schools instead of wast-

ing time on small, scattered bunches of fish. "It is quite possible also that schools of large fish might be distinguished from those of smaller, lesser fish, although this would require experience in observation. Another field for experiment would lie in the guidance of fishing steamers to large schools not visible from the coast, but plainly visible from aircraft, and communication by means of wireless telephone, harking buoys or other devices would enable the boats to set the seine around the fish invisible to them. Such co-operation would be of great advantage to the naval air service as well as to the fishing interests, as it would provide for the naval aviators excellent practice in scouting, station finding and communication."

New Vaccine Method Used to Check the Flu

London.—A new method of preparing vaccines, which may result in complete mastery of infectious diseases, is described in the London Lancet by the discoverers, Capt. David Thomson and Capt. David Lees, doctors who served in the British army service. They say they can detoxicate a vaccine, which means that the poison in it can be removed.

"Using the new method I have been able to inject without toxic symptoms doses of vaccine ten to one hundred times greater than was ever dared before, with the result that a greater degree of immunity is developed," says Doctor Thomson.

Doctor Thomson believes a few doses of a compound detoxicated vaccine given in October and again in January will afford considerable protection from influenza.

Has Gem of a Smile. Cleveland.—Police are looking for a woman with a gem of a smile. She is wanted for pocket picking. She wears a diamond in her teeth.

FAMOUS FRENCH AVIATRIX



Capt. Jane Horveux, the famous French aviatrix, the first woman ever to receive a license as pilot, has arrived in New York to teach aviation to American women. Captain Horveux, who has been a pilot since 1909, was stationed during the war at Villa Coublay and following the armistice was assigned as a mail carrier between Paris and Brussels. Photo shows her with "Toto," her flying mascot.

Get Gold Bullion from Sunken Vessel

Laurentic, Torpedoed During War, Carried \$35,000,000 in Ingots.

IS RETRIEVED BY DIVERS

British Salvage Ship Conducts Operations Off Shore of Ireland—Precious Metal Brought Up in Buckets.

Portsalon, Ireland.—Salvaging \$35,000,000 worth of gold ingots and bullion the White Star steamship Laurentic is reported to have carried when she was sunk the night of January 25, 1917, off Fanad Light, one of the northernmost headlands of Ireland at the entrance to Lough Swilly, is being conducted by the salvage ship Racer.

The princely cargo, lay at a depth of 22 fathoms. The gold and bullion were contained in the strong chamber amidships, rendered almost impregnable by its thick steel walls and heavily bolted doors. At first portions of the Laurentic's decks were blasted away and a passage was made clear

for the divers. On June 20, the retrieving of the treasure began. Gold Brought Up.

The first bucket sent up contained only copper pennies and a few silver coins. Then for several days, bucket after bucket containing three or more gold bars, each worth more than \$5,000, were hoisted to the surface and dumped on the deck of the Racer. The first of these bars brought lusty cheers from the crew of the salvage ship, but tossing fortunes about soon came to be merely another form of manual labor to these sailors.

Most of the gold bars were 9 inches long, 2 inches thick and 4 inches wide and weighed about 28 pounds. For days hot one was found, as many of them were hurled clear of the wreck by the blasting necessary to make the strong chamber accessible. Several feet of sand have now been washed over these scattered bars beneath masses of twisted steel and it frequently requires hours of patient labor to pry them loose. The record day's haul so far had been 47 bars—worth approximately \$350,000. Thus far several million dollars' worth of treasure has been salvaged.

Divers Work in Shifts. The Racer carries eight divers. Their "tricks" are so arranged that one diver is at work throughout the day. Each works half an hour and then must spend 30 minutes in coming to the surface as otherwise the sudden relief from the tremendous deep-water pressure might cause partial or complete paralysis. They are brought up in ten-fathom "hauls," with ten-minute "rest" intervals.

When the day's work is over, the day's "catch" if considerable, is dispatched to London with an armed convoy. When first built the Racer was a square rigger man-of-war—one of the "Wooden Walls of England," as the ships of the British navy at that time were known—a century ago.

Had No Change for \$20. So Court Raised Fine

Herbert F. L. Funk, all-round sportsman of Flushing, N. Y., was caught speeding by a motorcycle officer on the Merrick road and haled before a justice of the peace.

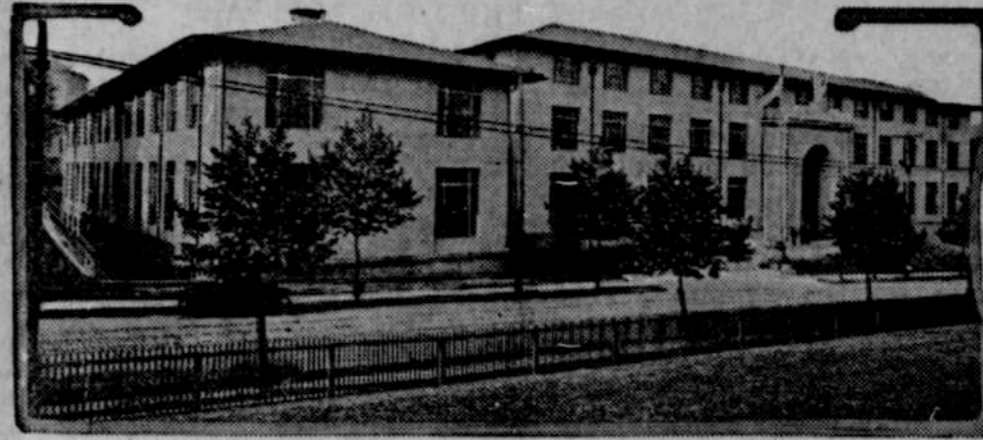
"I will fine you ten dollars," the rural justice said.

"Mr. Funk went down in his pockets and extracted a large roll. He peeled off the smallest bill.

"Can you change a twenty?" he asked.

"No, but I can change the fine," the judge replied. "You are fined \$20." Mr. Funk paid the fine.

NEW BUREAU OF MINES LABORATORIES IN PITTSBURGH



An elaborate program was arranged for the formal dedication, September 29 to October 1, of these new laboratories of the federal bureau of mines in Pittsburgh. Inset is a portrait of Dr. Van H. Manning, director of the bureau.

Answering Census Questions Will Help Out Farm Profits

Full and Fair Replies When the Enumerator Calls Are Likely to Aid the Farmer to Success—Every Question That Will Be Asked Is an Essential Question—Not Too Early to Get Facts Ready for Census Man.

(Prepared by the United States Department of Agriculture.)

Washington.—When the census enumerator comes around to the farm shortly after January 1 next year, he will ask some questions that may sound like prying into the purely personal affairs of the farmer. Now, the farmer, like every other self-respecting man, dislikes having his private affairs peeped into and, unless he thinks about this thing in advance, may have a disposition to be unresponsive if not actually resistant.

In actual fact, every question that the enumerator will ask is an essential question and has a direct bearing on the personal welfare and prosperity of the individual farmer as well as upon the advancement of the agriculture of the nation as a whole.

When the bureau of the census decided to take the farm census in January instead of in April, it did so upon the advice of the United States department of agriculture. The farmer is less likely to be very busy in January than at the spring planting and breeding season, and his products and live stock are in better shape for statistical treatment. Also, every new question—and there are a number of them—inserted in the agricultural schedule was placed there after consultation with the department of agriculture and for the purpose of clearing up some specific situation in which the department of agriculture is trying to aid the farmer.

Here are some questions that will be asked: "Do you own all of this farm?" "Do you rent from others part but not all of this farm?" "Do

child is grown—the farm paid for and the money that used to go to pay off the mortgage available for sending the children to college."

Now to the department of agriculture that looks like a thoroughly normal, healthy and beneficial process. To just the extent that tenancy leads to farm ownership, it is a good thing for the country and for the individual.

Full Answers Essential. But it has not been possible to get a complete, nation-wide survey of the situation. The forthcoming census offers the opportunity for doing that. If every farmer will answer the enumerator's questions fully and fairly the department of agriculture will have the data from which to analyze the situation accurately and to determine what things can be done to best advantage to help the tenant in his aspiration to become a farm owner.

One of the directions that aid may take is encouragement of rural credit's finding all of the ways possible of helping the young farmer to get the money that he needs to borrow. It is necessary, therefore, to know what proportion of farmers who advance from tenants to owners have to borrow money to make the change, and how much, in proportion to total value of the farms bought, they have to borrow.

The road toward ownership does not necessarily start with tenancy. A great many farm owners were first farm hands, then tenants, then owners with a mortgage, then owners debt free. The census will show, if the questions are answered fairly, how many years, if any, every farmer

SEEK JOBS FOR CONVICTS



Dr. E. E. Dudding, founder and head of the Prisoners' Relief society, and his assistant, Miss Evelyn Abbot. The society has organized a campaign to raise a million dollars from a million people. One of its chief activities is the placing of ex-convicts in suitable jobs, 5,000 having been placed last year. The headquarters of the society are in Washington. Doctor Dudding is himself an ex-convict, who has devoted his life to prison relief work without pay.

ing to do in aid of the farm population of this country. In order to do the work intelligently, the department needs as full information as possible as to how the farm homes of the country are equipped for comfort and convenience.

Another Way to Help.

Every farmer will be asked how many acres of drained land he has and how many other acres of land there are on his farm that could be made suitable for cultivation if they were tile-drained or ditch-drained. When these questions are asked you, remember that they are asked every one of your neighbors. Possibly you have a tract of land that would be the most productive field on your farm if you could get the surplus water out of it, but you can not do it because, to be effective, the drainage ditch would have to go far beyond the borders of your own farm, would have to be a county enterprise, and the county has not seen fit to do anything about it. If that be true, several of your neighbors have land that should be drained. If all of you tell the census enumerator how many acres you have that need drainage, the department of agriculture will have the facts to show what is needed in your community. When the opportunity offers, it will be in position to do what it may to secure for you what you need.

Those things are fairly typical of the questions that will be asked in taking the agricultural census. In order to answer all of the questions intelligently, the farmer will have to think about the matter a little before the enumerator calls on him. He ought to give the enumerator the most accurate information he can. What the individual farmer tells the enumerator is likely to benefit any number of other farmers. It is not too early now to get the facts straight in your mind.

Love for Hairless Dog Lands Mexican in Jail

Dallas, Tex.—His love for a hairless dog from Chihuahua, the home of his birth, got Jazza Morales in jail this week. The dog catcher hooked the Mexican's canine and took him to the city pound. Morales went to the pound and demanded his friend. When he was refused he broke the gates down and attempted to take the dog. He was arrested. Morales' canine went the way of hundreds of others—the gas route.

WHERE TRIP OF ARMY TRUCKS ENDED



Mayor Rolph of San Francisco and Col. Charles H. McClure, commander of the fleet of 72 army trucks which made the 3,000-mile trip from Washington to the Pacific coast in 62 days. They are inspecting the stone put up to mark the end of the trail.