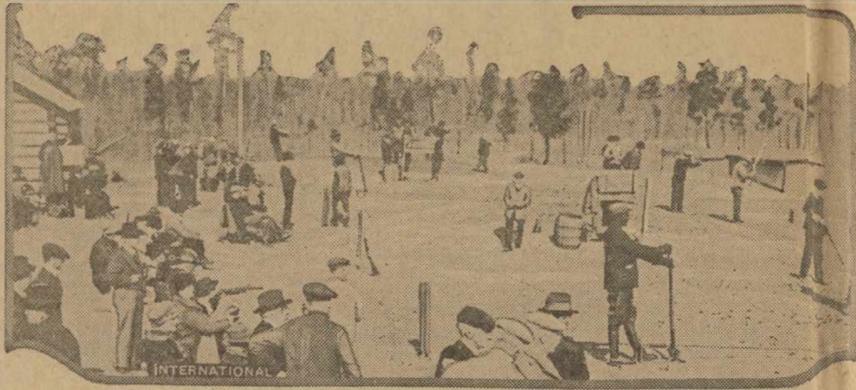


Trapshooters Compete in Match at Pinehurst



A view of the mid-winter handicap shoot on the famous traps at Pinehurst, N. C. Marksmen from many eastern and southern cities competed.

Air Liners to Link World

Plan to Fly Giant Dirigibles From London to America, Australia and Africa.

SPEED 60 MILES AN HOUR

Craft, With 100 Passengers Aboard, Expected to Fly From England to California in Four Days—Commercial Airship Is Already a Success.

London.—Plans are now under discussion here for linking up all parts of the world by passenger air routes, on which giant dirigibles, flying two miles above the surface at 60 miles an hour, will join London with North America, Australia, India and South Africa. If these plans are carried out air liners 800 feet long, equipped with berths, dining rooms, smoking rooms, libraries and observation platforms, will speed from England to San Francisco in four days, stopping to discharge passengers and mails at New York and Chicago. Each ship will carry 100 passengers, and the fare will be only 50 per cent more than present steamship rates. Ships capable of this service are now in commission, and a trial passenger flight will be made to Egypt by a British government airship to determine the feasibility of opening such passenger routes.

"The commercial airship already has proved its success," said Sir Trevor Dawson of Vickers, Limited, when asked whether he thought the plan practicable. Vickers, Limited, is now building airships for the British government, and Sir Trevor is an expert on the lighter-than-air craft.

"Day of Passenger Liner Here."

"The success of the R-34 showed the possibilities of a transatlantic service," he continued. "It is now only a question of building more and larger ships and equipping suitable landing fields, sheds and mooring stations on both sides of the Atlantic. The airships are speedy, safe and reliable. They can carry large cargoes, have a wide cruising range, and can ride out almost any weather.

"The day of the passenger air liner is here, and if the task of organizing air routes is undertaken by big financial interests it should be possible to begin a regular passenger service over Europe within six months with the ships and bases already in existence. The American service would require somewhat larger ships and landing stations in North America. But it could be in operation in less than three years. We need such a service, and I believe that it will come."

The R-34 is the type of craft suggested for the proposed service, but the contemplated ships, although built on the R-34 lines, would be much larger and have a far greater cruising radius. It is said that a rigid airship could be built that would be 1,100 feet long, carrying 136 tons of freight or passengers, and having a maximum range of 13,250 miles, cruising radius.

Maitland Supports Project.
Brig. Gen. E. M. Maitland, who commanded the R-34 in the transatlantic flight, is a believer in the plan for world air routes.

"Even the existing airship of today can be regarded as a reasonably safe public conveyance," he says. "They already have proved themselves capable of flying through practically any type of weather, and the larger airships of the future, fitted with more powerful machinery, necessarily will be even safer. Fog does not prove a real menace to airships, as with the present methods of navigation it is not necessary to see the ground in flying between bases. It is true that at present the most violent forms of electric storms are an undoubted danger to all forms of aircraft, but at the most this danger appears to be less than the danger of rocky coasts and shallows to the seagoing ship.

"Airships of this type of the R-38, which is now being built at Bedford, or the German L-71, would be capable of flying from England to Egypt, a distance of 2,200 miles, without a stop in two and one-half days. These ships would carry about 80 passengers, with 100 pounds of baggage for

each passenger, and about two tons of mail and merchandise. To put it another way, 15 tons would be available for passengers, mails or merchandise.

"Comfort in aerial travel is essential if it is to have any extended future. The advantage of speed is thrown away if the passenger is physically or nervously exhausted on landing. But ample accommodations can be provided for day and night travel."

Sleepers Are Provided.

A proposed car has been designed by Beardmore, at Dalmuir, in which special attention has been given to the importance of giving each passenger a good view. The windows are so arranged that passengers can see both outward and vertically downward should they wish to do so. The passengers sit facing each other with a table between them, rather like a large Pullman car. If they wish, they can arrange the chairs and tables for bridge.

"Sleepers are provided in the shape of bunks which fold down and allow the passengers to sleep athwartship. "The whole of the car will be heated by steam generated from the engines, and air will be admitted at the forward end of the car, where it will be warmed over radiators.

"One is struck by the absence of noise or vibration in a large airship, and the absence of smoke or dirt is a great asset. The complete absence of seasickness is also an important consideration."

Craft of the type described by Brigadier General Maitland already have been used in Germany on short passenger routes. The German Air Travel company, formed in 1910 and financed and managed by the Hamburg-Amerika Steamship line, ran regular passenger excursions and town to town services from 1910 to 1914. During this period these airships made 800 flights, carrying 18,000 passengers without a single mishap involving personal injury. One of the airships, the Vittoria Louise, made 200 trips in 250 consecutive days.

The company was able to make a profit, although the passenger rates were reasonable. Since the armistice, despite the unsettled conditions in Germany, airships have been built for a special mail and passenger service between Berlin, Munich and Switzerland. The first of these ships, the Bodensee, ran regularly from June to October last year, carrying 30 passengers a trip. It is said that the Zeppelin company is now negotiating with American interests for the organization of an air service from Spain to the United States and South America, and is designing giant ships with a speed of 80 miles an hour for this run. The ships will carry 100 passengers and their baggage, as well as six or seven tons of mail.

Valuable War Reserve Force.

The knowledge of handling the lighter-than-air craft greatly increased during the war. The ships were used under all weather and atmospheric conditions and did valuable service as escort and convoy craft and also in combat against submarines. Small dirigibles were used to locate and pursue the submarines and were able to detect a U-boat far below the surface. The new ships, in addition to their duties as passenger vessels, can easily be converted to purposes of war and will thus form a valuable air reserve force.

One of the developments recently made in airship landing stations is the mooring mast, which enables the airship to come to the ground and be moored even during bad weather. The mast is a tall structure, with a swivel mooring device at the top, from which the airship swings.

Plans are now being prepared for a mooring tower especially arranged for use with passenger-carrying airships. The revolving head of the mast will be provided with a powerful winch for hauling in and a shock absorbing buffer will enable the ship to be coupled up without difficulty even in winds up to 80 miles an hour. Within the mast there will be a passenger elevator by which the passengers will ascend to an upper platform, where they will cross a gangway and enter the ship.

Pipe lines to carry hydrogen, gasoline and water to the ship also will be run up the mast, and the vessel can thus refuel at her moorings.

Inventions Increase Safety.

Many war discoveries aid in increasing the safety of airship travel. The wireless direction finder makes it possible for the ship to find her location at all times and so navigate successfully in fogs. The increasing range and sources of information of the meteorological service aids in giving weather forecasts that will warn aircraft of approaching storms, which can be avoided by a change of course.

Laboratory investigations are now being made of the nature of the particles of moisture that forms fogs, and it is hoped that some way will be found of dispersing fog, so that a local clear area may be maintained about the landing places. All landing places are marked with brilliant electric beacons and lighthouses are being erected to guide night flying ships along aerial routes.

Airships are even now a safe form of travel. When rain, high winds or electric storms approach they can seek the higher air levels and so avoid danger. The risks from fire have been reduced to a minimum, and the danger of engine trouble, ever present in the airplane, is nullified by the fact that repairs always can be made without descending. Rigid airships never have less than four engines, and it is improbable that all engines will break down at one time. Even if half the engines broke down the ship could travel at four-fifths of her normal speed.

Public Demands Speed.

The airship has the advantage over both the airplane and the steamship as a passenger craft. The airplane can only travel 300 miles without stopping at a base for fuel and is thus impracticable for long distance routes. It is, furthermore, of limited carrying capacity, and the disagreeable features of noise and vibration cannot be kept away with. The great rigid, moving steadily day and night and having a cruising radius of 2,000 to 3,000 miles, makes a far better passenger ship. It has been suggested that airplane routes could be used as feeders to the airship lines, small airplanes carrying passengers to a central point, whence they could embark on the airships of transoceanic and transcontinental lines.

When the lines are established the steamships also will find them serious competitors. The airship is infinitely quicker and does not have the pitch and toss that makes steamer travel unpleasant. The demand for great liners that cut down the time spent in transatlantic travel shows that there is a large class of travelers who want and will pay for speed. These people will be the clientele of the transatlantic airship.

The shipment of valuables, bonds, stocks and bullion on the speedy air liners will save the money lost in interest, and urgent mails should be shipped in this way. Even at an advanced postage rate a letter of thousands of words could be speedily transmitted in this way at the cost of one word of a cabled message.

Advantages Over Steamship.

The advantages of the airship over the steamship and also the relative cost of travel are shown in the following table compiled by Brigadier General Maitland:

	Airship	Steamship
Time of transit, 40—	4 days	14 days
Cost of passage, 1st class	£50	£45-50
India	100	65-70
S. Africa	84	17-19
Australia	150	25
		115-125

Speed, safety, and a new and thrilling form of travel will be thus combined at a cost that, in view of the saving of time, is relatively little greater than the present steamship rate.

"The continental air routes will come first," says Sir Trevor Dawson, "but the most important part of air travel will be that between Europe and North America. They are the two great continents, the continents that have between them a steady flow of passenger travel. Air travel must come, cutting down the time distance between countries, and thus strengthening the ties of business, trade and international understanding. I am looking forward to the time when air liners will bring London within two days of America."—Otis Peabody Swift in New York Tribune.

Thugs Return Hero Medal.

Connellsville, Pa.—While a negro woman held up Mrs. Annabelle Gemas, along the West Penn street car line near the Gemas home, two negroes searched her, took her pocketbook, containing about \$30, but returning a gold service medal which the woman's husband, the late George Gemas, had been awarded for service in the Spanish-American war.

SHOW TEXAS AS LAND GRABBER

Maps Give It 1,875 Miles That Don't Belong to It, Says Geologist.

NO PROPER STATE MAP MADE

Texas System of Land Survey Inherited From Mexico and Spain—Current Maps Made by Many Individuals.

Austin, Tex.—According to Dr. Robert T. Hill, former state geologist, who has just finished a study of the topographical features of Texas and is making a report on the subject for the United States geological survey, until recently all existing maps give an inaccurate idea as to the geography of the state, particularly with reference to the courses of the Rio Grande on the South and the Red River on the north. Mr. Hill says that all current maps of Texas locate the Rio Grande, which has always been accepted as the boundary between this country and Mexico, inaccurately. The maps include in Texas a strip of territory averaging 25 miles in width and 75 miles in length (about 1,875 square miles), which does not belong to it. Until the World war, when special surveys of the border were made by the War department, nothing was known of the Rio Grande district. These maps, since published by the department, revealed the mistake in current maps.

No Proper State Map.

There is no map published showing even approximately the physical features of the trans-Pecos section, the mountainous portion of the state. Many of the ranges and peaks are entirely omitted and others are located inaccurately. Doctor Hill has made a special study of these sections of the state and will make known many inaccuracies through the maps he is preparing for the government.

The Davis mountains, well known to

Testing New Bullet-Proof Glass



A demonstration of the value of a new-process glass, designed to protect bank cashiers and others from bandits, was staged in Boston recently. "Nick Carter," of dime novel fame, in private life Frederic Van Rensselaer Dey of Nyack, N. Y., is shown in the photograph firing an automatic pistol at the new bullet-proof glass, the only damage to the glass being slight dents.

Texas residents, are not included on any map. They form one of the principal range districts in the state. To the west of these mountains is a long, narrow strip of desert country, low-lying valley plains about 200 miles in length, running along the Rio Grande, northwest into New Mexico. These valleys are not defined on any map published.

The Diablo country consists of undulating plains, with peaks of various sizes and kinds, extending into the Sacramento mountains of New Mexico. The railroad follows a valley scooped out of the vast plain, extending northwest into New Mexico and southwest into Mexico. The traveler from El Paso to the New Mexico line is always either upon or in sight of this plain for about 250 miles. The surface is so smooth, except where it is broken rarely by peaks, that it seems as level as a floor. The plain is inclosed on all sides by a wall of higher mountain

ranges. But none of these features has been placed on a map.

Based on Settlers' Notes.

The county and state maps of Texas are inferior to those of other states, Doctor Hill said, because of the different systems of land survey used in Texas. In other states the land has been accurately surveyed and divided into townships and sections. The surveying was done and field notes made under United States supervision, as maps of the country were always necessary to acquire land. The Texas systems were inherited from Mexico and Spain. Scrips or warrants were issued to individuals, who went out, took some natural object for a corner, measured off a block of acres called for in the shape and direction chosen, and sent the notes to the land office. Current maps were compiled from these notes, made by many individuals, and the topographic information supplied was nearly always meager.

Up to 1860, when the geological survey began in Texas, there was only one point in Texas with its exact location on the earth's surface known. This was a monument to David Crockett, near the old land office, on the capitol grounds at Austin. It was located by the United States geodetic survey.

About 1880 some women were giving a bazaar for patriotic purposes in Austin. They desired some souvenirs to sell at the bazaar, and at their request the old monument was broken into pieces and taken to the bazaar. Thus perished the only point in Texas definitely located on the earth's surface.

AID BREEDING OF REINDEERS

United States Plans to Make Animal Important Factor in Meat Industry.

TRY TO DOUBLE HIS WEIGHT

Alaska Has 200,000 Reindeer With Range for Several Millions—Multiply From Original Importation of 1,280 in 28 Years.

Washington.—Santa Claus' reindeer have promise of becoming a factor in the meat supply of this country as they are in Scandinavia, where reindeer meat last year sold at a higher price than beef or mutton. The government is going to aid in putting the infant industry of Alaska on its feet by experiments in increasing the reindeer's weight to about double the present average by scientifically breeding them, locating ranges and studying the animal's diseases, parasites and grazing problems. Provision is made in the agricultural appropriation bill of this year for that purpose.

Alaska Has 200,000 Reindeer.

Dr. E. W. Nelson, chief of the biological survey, in urging the appropriation, told congress there are about 200,000 reindeer in Alaska, of which about three-fourths belong to the natives and one-fourth to the government and to white owners who have started a commercial industry in grow-

PEREZ AND HIS BRIDE



Joseph R. Perez of Santa Mana, P. I., and Miss Salvador C. Espiritu of Manila, both students of the University of Chicago, were married in that institution, the other day. This is said to be the first Filipino wedding to take place in this country.

ing reindeer for meat. These reindeer multiplied from an original importation of 1,280 animals made 28 years ago for the benefit of the Eskimos.

"People have asked me what the future of the industry is likely to be," said Dr. Nelson. "I have replied by asking them the question: 'If 1,280 reindeer in 28 years produced the present 200,000 animals, what is likely to be the increase from 200,000 animals in the next 28 years?' The increase is almost unbelievable. In other words, the industry, properly handled, should have a great future."

"The Alaskan firm which has started the industry exported 1,600 head to Seattle last year. The firm has established four small cold storage plants at points on the Alaskan coast where the reindeer can readily be driven down for slaughter to be refrigerated and loaded for shipment.

"I believe Alaska contains available range to maintain from four to five million of reindeer. The estimate has been made that it would take care of 10,000,000, but I think that is too high.

"Five million reindeer would give an average output of about 1,250,000 reindeer a year. Dressed for market an animal now averages 150 pounds. Taking this weight and the present value of reindeer meat, the fully developed reindeer industry in Alaska should yield approximately \$43,000,000 a year. Reindeer have been in Alaska 28 years and their increase under crude methods of handling has been almost startling. Under proper scientific supervision and modern methods the industry should develop very rapidly.

"There are big herds of wild caribou about the Mount McKinley region, some bulls of which dress up to about 400 pounds. We plan to capture some bulls of this stock and use them with an experimental herd of reindeer cows for the purpose of building up a higher grade of reindeer, having greater weight and increased hardness. I believe it will be practicable in less than ten years to have the reindeer of Alaska running from 250 to 300 pounds to the carcass, instead of 150 pounds as at present.

"The increased weight would increase the value of the fully developed Alaska reindeer industry enough to bring the potential output around \$60,000,000 at present value. That is more than the fisheries of Alaska produce. "Stefansson, the Arctic explorer, was here recently. He is interested in the lease granted by the Canadian government for a great area for reindeer grazing in Baffin's bay region. He informed me that in the Scandinavian countries of Europe about 200,000 reindeer are killed for meat each year.

"We are talking about helping to build up Alaska, and here is one thing that is right in sight today, a fine, big industry, and I do not know of any other like it in the immediate future. The future looks so promising that the expenditure which we contemplate is trifling compared with what the outcome is likely to be."

One Little Pig Is Cause of Furore

Cincinnati.—"This little pig went to market, and this little pig stayed at home," and this is a story about a little pig that didn't want to go either, and in its efforts to get out of staying home and going to market caused a Cincinnati fire department to go clanging away on a fruitless trip.

The pig was in a pen in the Meyer packing house. It got out, and soon had a throng of employees chasing it madly around. The pig rebounded here and there in the factory, finally coming full tilt against an automatic fire alarm. An engine company, hook and ladder and the district fire marshal responded. Also a great number of citizens, who for the time being were disengaged.

The pig eventually was corralled, with the aid of the citizens.

Wants to Pay Old Bills.

Nortonville, Kan.—After being absent from Nortonville for 20 years, John J. Sheeran writes from California that he wishes to atone for his wrongs by paying all his unpaid bills in Nortonville. Sheeran says in his letter that he realizes now that "nothing spotted or unclear can gain heaven," and that he had made scandal and desires forgiveness of those he has wronged. He indicates that if he does not get the bills in a certain length of time he will give the amount or more to charity.

His Purse Returned.

New Albany, Ind.—Dr. John F. Weathers of this city has recovered a purse containing \$21 in money and his Southern Railway pass as surgeon for the company, which he lost in a store Thanksgiving evening. When he went to his garage the next morning he found the purse, with the contents intact, on a post near the door, where it evidently had been left by some conscience-stricken person.

Bars "Yellow Streak."

Washington.—A yellow streak is well enough in a gold mine, but has no place in the make-up of humans or noodles. In noodles it denotes use of a dye in place of eggs, the Department of Agriculture holds in an announcement, and federal food inspectors have been instructed to shut the gates of interstate commerce to such dubious characters.