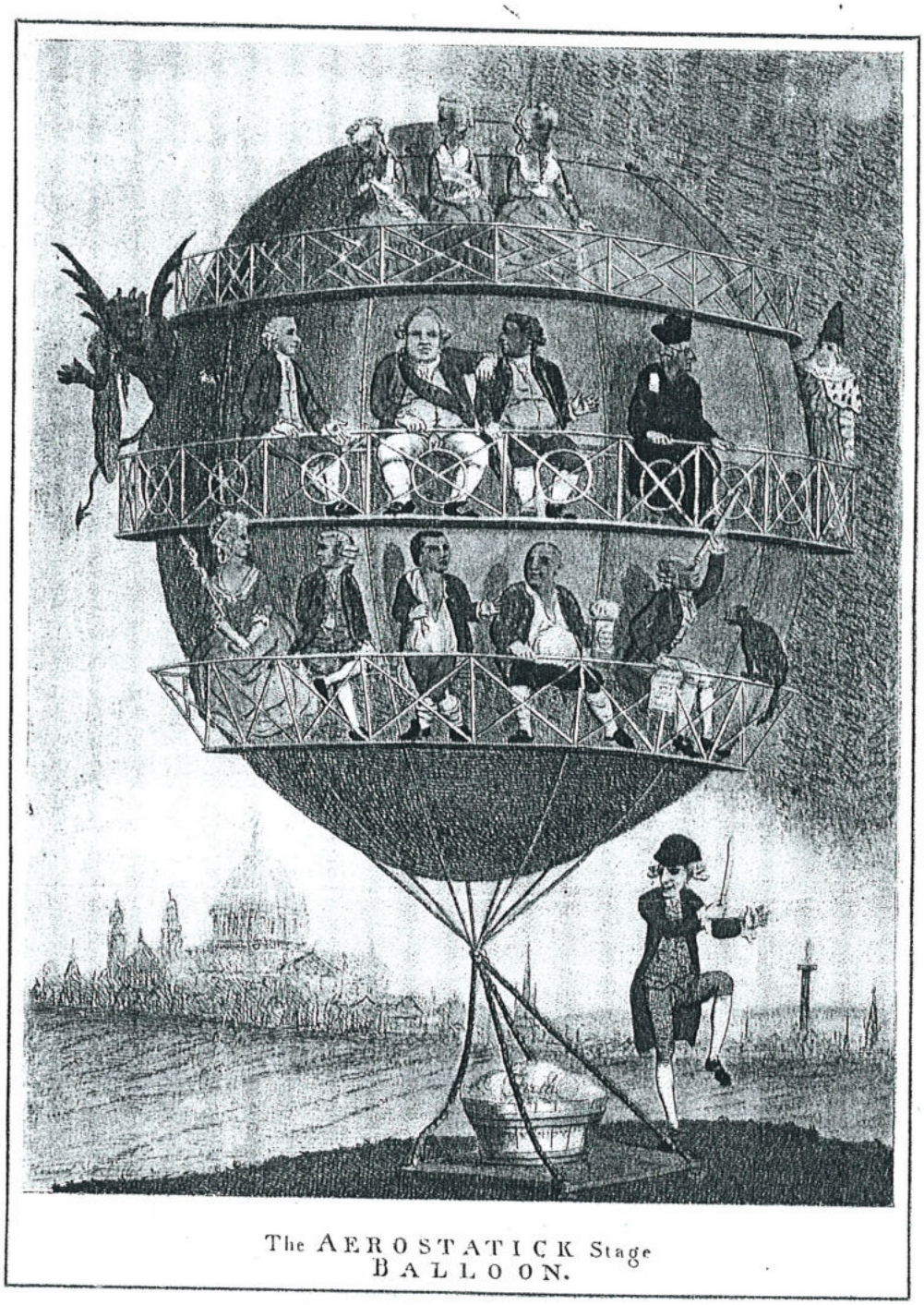
December 1930

The Sportsman Pilot

35 Cent



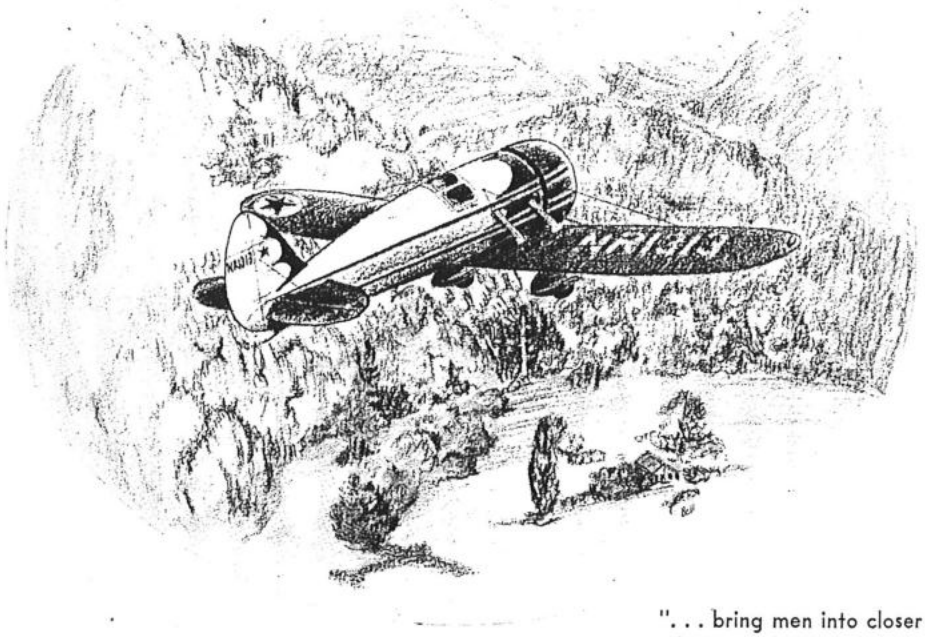
The AEROSTATICK Stage
BALLOON.

Stephen Leacock • James Warner Bellah • Roger Wolfe Kahn
Juan de la Cierva's Windmill • America's First Glider Club

The crystal gazing of Octave Chanute

Illustrated by Mary Bell

Octave Chanute built the first Mississippi River bridges. A great engineer, his hobby was flying. In 1896, when past sixty years of age, he built and flew gliders in hundreds of flights. He made the first practical use of a biplane glider, and the truss bracing of modern airplanes originated in Chanute's application of the bridge truss to planes. He knew that powered planes would eventually fly. Ten years before they actually did so, he made the predictions appearing below—an example of marvelous foresight in spite of their minor discrepancies. Chanute lived to see his vision realized, and died while airplanes were fighting each other over the Western Front.



". . . bring men into closer relation with one another"

"FLYING machines must invariably be provided with a powerful and light motor, but they will also utilize the wind at times. They will probably be as small as the character of the intended journey will admit of, for inasmuch as the weights will increase as the cube of the dimensions, while the sustaining power only grows as the square of those dimensions, the larger the machine the greater the difficulties of light construction and of safe operation. It seems probable, therefore, that such machines will seldom be built to carry more than from three to ten passengers, and will never compete for heavy freights, since the useful weights—those carried in addition to the weight of the machine itself—will be very small in proportion to the power required.

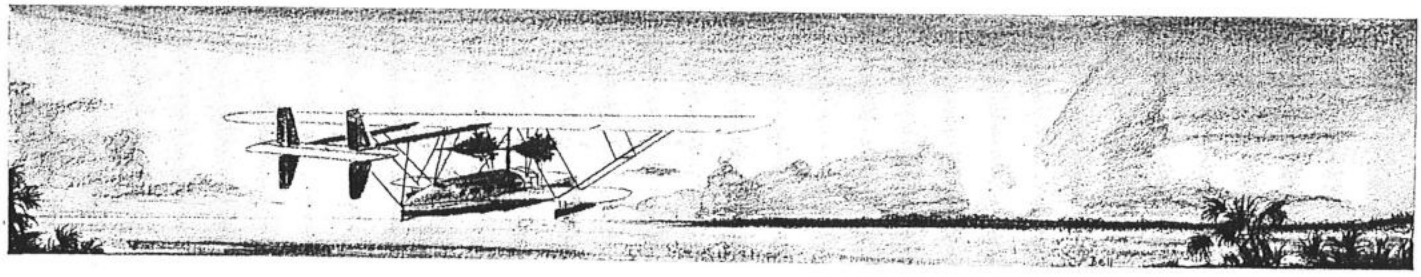
"Although it by no means follows that the aggregate cost of transportation through the air will be in proportion to the power required, the latter being but a portion of the expense, it does not now seem probable that flying machines will ever compete economically with existing modes of transportation. It is premature, in advance of any positive success, to speculate upon the possible commercial uses and value of such a novel mode of transit, but we can already discern that its utility will spring from its possible high speeds, and from its giving access to otherwise unreachable points.

"THE actual speeds through the air will probably be great. It seems not unreasonable to expect that they will be 40 to 60 miles per hour soon after success is accomplished with machines provided with motors, and eventually perhaps from 100 to 150 miles per hour. Almost every element of the problem seems to favor high speeds, and, as repeatedly pointed out, high speeds will be (within certain limits) more economical than moderate speeds. This will eventually afford an extended range of journey—not at first probably, because of the limited amount of specially prepared fuel which can be carried, but later on if the weight of motors is still further reduced. Of course, in civilized regions the supply of fuel can easily be replenished, but in crossing seas or in explorations there will be no such resource.

"It seems difficult, therefore, to forecast in advance the commercial results of a successful evolution of a flying machine. Nor is this necessary; for we may be sure that such an untrammelled mode of transit will develop a usefulness of its own, differing from and supplementing the existing modes of transportation. It certainly must advance civilization in many ways, through the resulting access to all portions of the earth, and through the rapid communications which it will afford.

"It has been suggested that the first practical application of a successful flying machine would be to the art of war, and this is possibly true; but the results may be far different from those which are generally conjectured. In the opinion of the writer such machines are not likely to prove efficient in attacks upon the hostile ships and fortifications. They cannot be relied upon to drop explosives with any accuracy, because the speed will be too great for effective aim when the exact distance and height from the object to be hit cannot be accurately known. Any one who may have attempted to shoot at a mark from a rapidly moving railway (*Continued on page* 54)

". . . it shall abridge distance"



Octave Chanute

(*Continued from page 24*)

train will probably appreciate how uncertain the shot must be.

"FOR reconnoitering the enemy's positions and for quickly conveying information such machines will undoubtedly be of great use, but they will be very vulnerable when attacked with similar machines, and when injured they may quickly crash down to disaster. There is little question, however, that they may add greatly to the horrors of battle by the promiscuous dropping of explosives from overhead, although their limited capacity to carry weight will not enable them to take up a large quantity, nor to employ any heavy guns with which to secure better aim.

"Upon the whole, the writer is glad to believe that when man succeeds in flying through the air the ultimate effect will be to diminish greatly the frequency of wars and to substitute some more rational methods of settling international misunderstandings. This may come to pass not only because of the additional horrors which will result in battle, but because no part of the field will be safe, no matter how distant from the actual scene of conflict. The effect must be to produce great uncertainty as to the results of manoeuvres or of superior forces, by the removal of that comparative immunity from danger which is necessary to enable the commanding officers to carry out their plans, for a chance explosive dropped from a flying machine may destroy the chiefs, disorganize the plans, and bring confusion to the stronger or more skillfully led side. This uncertainty as to results must render nations and authorities still more unwilling to enter into contests than they are now, and perhaps in time make wars of extremely rare occurrence.

"So may it be; let us hope that the advent of a successful flying machine, now only dimly foreseen and nevertheless thought to be possible, will bring nothing but good into the world; that it shall abridge distance, make all parts of the globe accessible, bring men into closer relation with each other, advance civilization, and hasten the promised era in which there shall be nothing but peace and good-will."

Faithful flying

(*Continued from page 42*)

Vance, whose hours on trimotored passenger transports are exceeded by few pilots in the country, inaugurated night flying with multi-motored passenger planes when Boeing System started this nightly service between Oakland and Salt Lake City, a 643-mile night flight over the mountains and deserts.

It is interesting to watch this plane, which weighs eight and three-quarters tons when fully loaded, respond to the urge of the 125-pound Vance. Spectators always get a thrill as Vance climbs into the cockpit of the giant night transcontinental mail-passenger plane and, with the roar of its three 525 horsepower Hornets, speeds eastward into the night, up and over the crest of the Sierras.

VANCE philosophically regrets somewhat the passing of the adventurous days of aviation and recently summed it up this way:

"We old timers feel a good dea like the old time cowboy does when he goes to a dude ranch. When I glance over my scrap book it brings me back to my memory of the days when we carried mail and nothing else and the slogan was, get the mail through irrespective of what happens.

"TAKE this radio business, for instance. In the old days we just batted right through, fighting storms as we came into them. We never knew what the weather was going to be once we took off, as we had no way of communicating with anyone. In impossible weather we went as far as we could then set down and everybody wondered where we were.

"Now, strung along the 1,938 miles between Chicago and San Francisco are fourteen radiophone stations and the pilots are in constant communication with the ground stations and we can even talk with pilots of other planes in flight. If we are above the clouds we are told how much ceiling is below and if bad weather develops after we take off we are warned ahead of time not to fly into it and are told of alternate and favorable routes around the storm.

"The radiophone is a great safety factor but it is just another one of those modern devises which has revamped commercial aviation so that the thrills of yesterday are almost passed."

Vance, after 6,000 hours in the air, has no intention of quitting and he sees no reason why he should not continue until past his prime. toting mail and passengers as he has been doing for the last decade.