

The FUTURE of AVIATION

TEN years ago among the sand dunes of North Carolina, a slim, gaunt, intense Ohioan stretched himself downward on a narrow ledge surmounted by yards of outstretched muslin, a compact, powerful little engine purred at his heels, and a giant, inanimate thing of spruce and cloth swept like a falcon out over that silent, sea coast desert. A little telegraph office at Kitty Hawk, N. C., an hour later startled a world with the laconism: "The Wright brothers have flown." It was the word civilization had awaited hundreds of years. For the dream of flying is as old as civilization. A decade has passed since man "sprouted his wings." The world has watched him from his first weak, fitful bounds from mother earth for brief seconds aloft to his hours and even a day in steady sustained flight. It has ceased to marvel, and it expectantly has come to look to the future—to wonder "what next." Ten years ago Wilbur Wright flew at Kitty Hawk for 59 seconds. Today the record for sustained flight is 14 hours and 1,300 miles.

In ten years the aeroplane has made more rapid strides than did the automobile. More than a thousand men, with a fair percentage of women, today are driving aeroplanes in all parts of the world. The first successful flight of the Wrights has almost been forgotten so great has been the progress of the aeroplane and the increase in the number of aviators.

The English channel has been crossed and recrossed by one, two and three persons in an aeroplane, aviators have swept up and over the fearsome peaks and abysses of the Alps; whole continents have been crossed in aviation races; the United States has been spanned by an American, who lost his life in a comparatively trivial exhibition feat. But the present asks: "Well, what of the future? What will these birdmen be doing ten years from now?"

From the stage of pure amusement, the period when aviation was alone for the daring, those who were counted foolhardy and the show people of the air, flying is working toward a commercial stabilization. The men who cling to aviation today are those with ideas of making it a recognized asset of commerce. The era of aerial transportation is upon us.

They will have crossed the Atlantic ocean, penetrated the dismal jungles of Africa, scanned the tropical fever-ridden areas of the Amazon, brought back the word from the remote regions of ice and snow? Perhaps. But, greater still, aeroplanes will be a proven adjunct of commerce. Our mails will be shot to almost inaccessible points through the air. The trackwalker of the great railroad system will give way to the critical eyes of a man-bird sweeping swiftly along the ribbons of steel. Through tangled wood and over swollen river the telegraph and telephone lineman will skim with his vision focused on narrow strands of copper wire. Far into Alaska, reached today only by toiling dog train and intense suffering, will go the aviator with mail supplies and even luxuries. These are but a few of the suggestions of aeronautical optimists.

The enormous death rate of aviation in proportion to the number of persons who have taken it up would indicate to the layman that the conquest of the air is far from complete. But such strifes have been made in the last few years that, despite the death toll, the results have been more than encouraging. There are aviators flying today who, seemingly, are almost as safe in the air as if on land or on the water. After all, most of the deaths of aviators have been due to accidents which resulted from carelessness on the part of some one, either the flyer himself or his mechanic.

So confident are aviation experts that the aeroplane has been developed to a stage where it can be used in every day business that many of them are attempting to adapt it as a carrier of the mails. Many of the Alaskan wastes and sparsely settled regions of the west could be traversed in hours where now it requires days.

The French government was the first to apply the aeroplane to the practical delivery of the mails. The aeroplane has given a fast mail service in parts of desert Africa. Henry Woodhouse, an expert on things aeronautical and editor of Flying, a magazine devoted entirely to the airmen, recently predicted wonderful progress in the aeropost.

"Each month," he wrote, "something happens to emphasize more forcefully the value of the aeroplane for mail carrying, and whereas it is usually demonstrated in places where there is an efficient mail-carrying service—by the ordinary methods—it is made more and more evident that aeroplane mail service will be a boon to such places as Arizona, Colorado, Texas, New Mexico, Nevada, Alaska, the Philippines, Canada and South and Central America."

"The conquest of the desert by aeroplane is complete. Traveling a mile a minute, it crosses from oasis to distant habitation in a few hours. The French government in the last six months has employed two scores of aeroplanes to carry mail, provisions and passengers from Casa Bianca, the port, to different points along and across the desert. With this aerial service it has been found that intercommunication and transportation between points on the desert is faster than in certain places in Europe and America. The aeroplane has shown that it is to become a potential factor in solving the problems of advancing civilization in Morocco, Algeria, Tripolitania, Congo, the Soudan and in Zambesi.

"It already has saved thousands of lives in the French campaign in Morocco and Italian campaign in Tripolitania—for which it has never received credit from the world at large—by always watching the movements of the enemy, thus avoiding those unpleasant surprises which have crimsoned the pages of the history of the conquest of Africa.

"Other demonstrations have been given practically each day of the last year. Every one of the flights of Garros, Brindejone de Moulinais, Guillaux, Bider and the threescore of other airmen, who make flights of from 500 to 1,300 miles a day, are forceful demonstrations of the increased swiftness in mail carrying which the aeroplane affords."

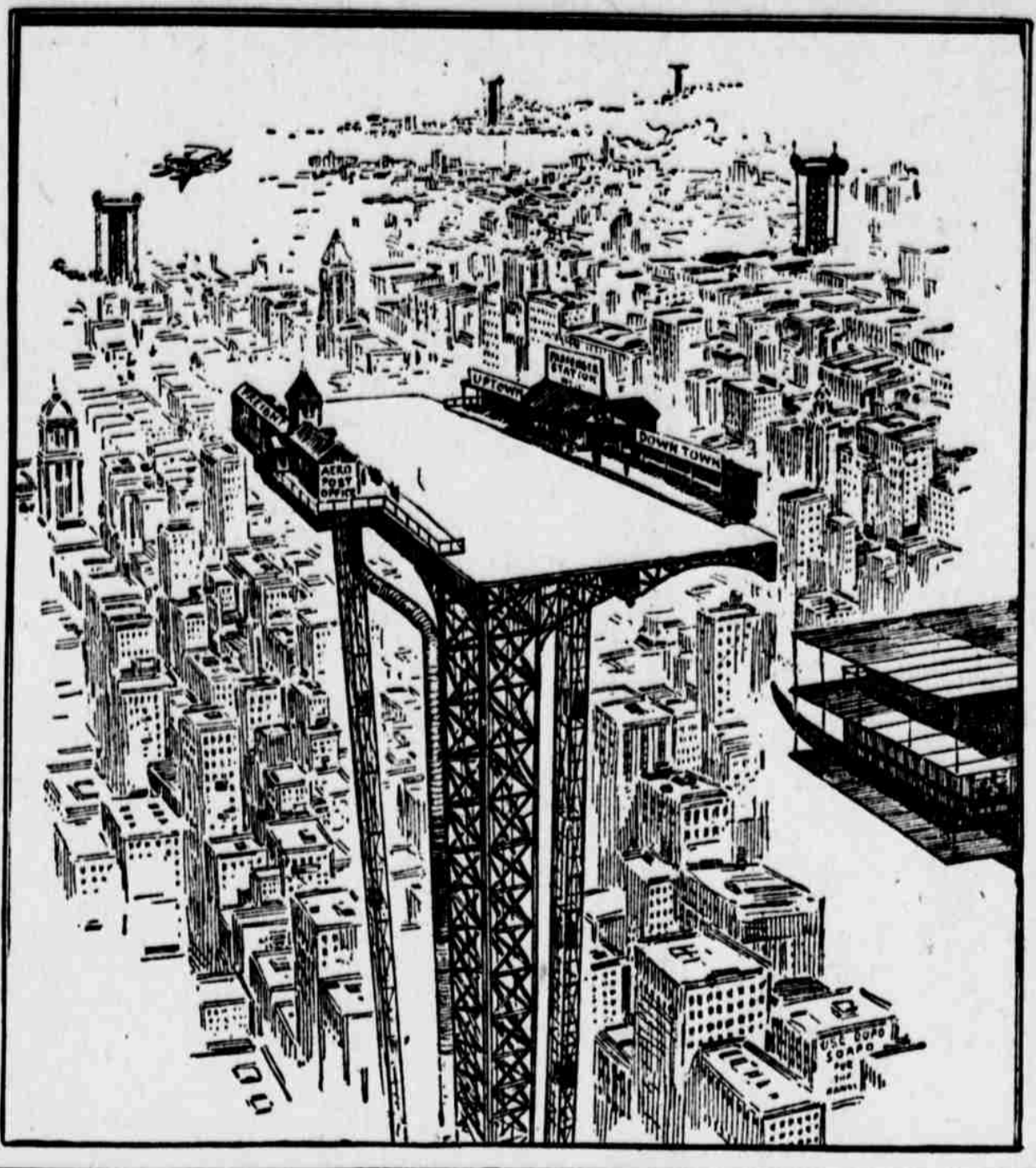
Advocates of the aeropost for Alaska point out that last September United States army engineers traveled half way across Alaska to a point two degrees from the arctic circle—traversing altogether about 826 miles—in 19 days. The aeropost proponents say any of the well-known cross-country aeroplane drivers of today could have accomplished the trip, with or without mail, in one day and many others could do it in three days at most.

United States government officials have indicated their willingness to help in developing the aeroplane for the mail service. Postmaster General A. S. Burleson, in a recent letter to Woodhouse, showed his desire to encourage the aeropost advocates as much as he can.

"I fully realize," he wrote, "the necessity of keeping abreast of the needs of the postal service for the rapid transmission of mail and of using every possible facility to this end. In line with this conviction the department is ready at all times to give careful study and consideration to such new means of transportation as may be discovered and developed. We have repeatedly given official aid to aviation meets throughout the country by establishing special postal stations and authorizing the transportation of mail temporarily by aeroplane.

"These activities, of course, are recognized as experimental, but I am persuaded that the time is rapidly approaching when the department will be called upon to give serious consideration to the feasibility of aerial mail transportation. The adoption of such means, however, can only be brought about after it is demonstrated they can be furnished and maintained within the proper limits of economy."

That no future war will be fought without the aid of the aero scout is a foregone conclusion. This is evidenced by the invaluable aid the aeroplane gave the French and Italians in their recent troubles in Morocco and Tripoli, and to the various armies engaged in the recent warfare in the Balkans. United States army aviators every day now are scouting along the Mexican border watching over the huge army camp in which men are living every day on the chance trouble with Mexico may start at any time.



THE FUTURE OF AVIATION AS AN ARTIST SEES IT

Increase is being made in aeroplane equipment of the world's armies every week. France leads in the number of aeroplanes. These total more than 265, and the French have one aeroplane for the navy.

Russia has 116 army aeroplanes and Germany has 46. Japan has 10, Great Britain has about 30, Italy has 25 and the United States about 25. England has six for the navy, and the United States, Japan and Italy have four each. Russia has one and Germany two.

Cross-country flights in 1912 and 1913 show conclusively aeroplanes can be relied upon to cover great distances at high speed. The greatest flight in 1912 was that of Andrei, who, in a Nieuport machine, flew from Sebastopol to St. Petersburg, 1,670 miles. He took 25 days for the trip.

Great things are ahead of the aeroplane. A prize of \$50,000 has been offered for the first flight across the Atlantic ocean. Next year or the year after some venturesome aviator, using a hydroaeroplane, probably will have attempted to fly from England to America or from America to England, and the success of the venture would not be surprising.

Two things are certain: The aeroplane has come to stay as a war agent, and it will develop into the best agent for the cross-continent and cross-mountain transportation and delivery of the mails.

There also are possibilities in the transportation of passengers, the establishment of aerial ferries and the inspection of long sections of railroads. Already it is being utilized by telegraph line inspectors in remote sections of the far west.

It is Editor Woodhouse who points out that railroad inspectors could cover more ground and make better and quicker reports by the use of the aeroplane.

"Using an aeroplane," he declares, "inspectors can inspect the road at a speed of between 40 and 70 miles an hour. By using moving picture machines an inspector can photograph the line at the rate of 50 miles an hour, and allowing six hours of traveling to each day he can in three days present to the executive officers of a railroad a film showing the detailed conditions of 1,000 miles of road, which the officials can go over at their meeting and know the exact state of the road and the land adjoining the road.

"As was shown by the experiences of C. P. Rodgers and Robert Fowler in their trips across the continent, rails offer certain advantages over broken country for landing on and starting from. An aeroplane having wide roller wheels finds the rail an every-ready platform to land on and start from.

"A railroad considered the matter of using aeroplanes a year or so ago, but they were deterred from employing them by the excessive cost of securing competent aviators to operate them. At that time competent aviators were still drawing large incomes from exhibition flying, and as that particular railroad which was willing to consider the employment of aeroplanes found that it required 12 aeroplanes for the purpose, the salary item became too excessive to be practical.

"But now that competent aviators can be had at from \$50 to \$100 a week, and almost any intelligent mechanic can be trained to operate the kind of machine needed for railway surveying, the proposition assumes a practical aspect and there is no doubt that railroads will readily see the advantages of using aeroplanes for this particular purpose."

Editor Woodhouse, like many other aviation experts, believes it will be only a question of time when the aeroplane will be developed for use in connection with the revenue cutter service, irrigation service, life saving and light-house service and in the bureau of fisheries, forestry and geological survey of the national government. South and Central America are as yet practically virgin territories for the development of aerial navigation.

Aviation experts are engaged in devising the best way to make an aeronautical map of the world. Tremendous increase in air navigation, combined with the widening radius of dirigibles, crossing countries, continents and even seas, as they have, has made the necessity for the aeronautical map imperative.

The need of well trained, capable young men to take up aviation is pointed out by Woodhouse, who believes, with President Richard C. Maclaurin of the Massachusetts Institute of Technology, that it is a duty on the part of educational institutions to provide instruction in aeronautics.

"Aerial flight of today," Dr. Maclaurin says, "is either an engine of war or an exciting amusement. Its greatest use at present is for pleasure, but before it can be very greatly developed it must be freed from its more serious dangers.

"The men who must see to making reasonably safe the sport of flying must be trained engineers and men of science, and such men are produced in the higher technical schools and colleges. It is for such reasons that the Massachusetts Institute of Technology now makes official a line of work that heretofore has been possible only as an adjunct to other courses."

And so aviation as a science stands. Men in every walk of scientific endeavor are trying to improve it. The nations of the world are spending \$89,000,000 this year to forward the progress of aviation. With expenditures increasing every year wonderful things can be expected in the next decade. In the meantime constructive geniuses like Orville Wright and Glenn H. Curtiss are working in secret to improve the aeroplane, and flying geniuses are working in public to show it to the world.

The Wrights, Wilbur and Orville, were the first to demonstrate that a heavier-than-air machine could be made to fly. Before them, for many generations, men had tried to solve the problem of aerial navigation, but the spherical balloon up to 1903 practically had been the only air craft that could be relied upon to carry passengers.

Some of those pioneers in the search for flying honors previous to the success of the Wright brothers are: Prof. Samuel P. Langley, one time secretary of the Smithsonian institution in Washington; Sir Hiram Maxim; M. Clement Ader, who was killed during his experiments; Otto Lillenthal, a German; Octave Chanute, civil engineer; Percy Pilcher of England, killed when experimenting; Prof. John J. Montgomery of California, and many others.

OLD TIMES AND NEW CHILDREN LOVE SYRUP OF FIGS

Fiji Islands of Present Is Unlike Those of the Past.

Once the Abode of Bloodthirsty and Gluttonous Cannibals, is Today Under White Man's Influence, a Place Where Strangers Are Safe.

New York.—In the popular mind the Fiji Islands—stuck somewhere off in the vast South seas—are still the lurking place of giant cannibals. And we are apt to think of the Fiji himself as a black, bushy-headed, ring-nosed savage, flourishing a frightful war club, and dancing naked about a heap of well-picked human bones. It's all the Fiji's fault, too, if we think thus of him, for he is a man with a lurid past.

For years all news from Fiji bristled with tales of butchery, human sacrifice, and widows strangled to death. The first Fiji chief ever to visit America was sullen old Venedovi—who was brought around the Horn to Hampton Roads on the Yankee corvet Vincennes, years ago, to stand trial for killing and eating a party of American sailors who had landed on his island. And away back in 1840, when American ships ruled the sea and Uncle Sam made the first survey of the Fiji Islands ever undertaken, our sailors found out for themselves just how fully the Fijians deserved the terrible reputation they enjoyed.

At that time, and for long afterward, these islands were undoubtedly the abode of the most bloodthirsty and gluttonous cannibals which it ever became civilized man's duty to subdue. The cheapest thing in Fiji was human life. While villages were killed off, merely to furnish meat for some tribal feast. Living men were used as rollers for launching new and heavy war canoes, their lives being crushed out to appease the gods who looked after navigation, and it was a common practice to bury men alive under the foundations of new houses and temples. When a great man died his wives, friends, and sometimes even his mother, willingly came forward and were strangled to death beside the dead man's bier. Captain Cook visited the islands in 1773, but for nearly a hundred years afterward these wild orgies continued, and the



Entrance to Public Park in the Fiji Islands.

conquest of Fiji cost the civilized world much money, and many a white man's life.

Today over 100,000 Fijians still inhabit those distant isles. Many of their weird superstitions still prevail, and on feast days the warriors paint their faces, don their strange grass kilts and enormous head-gear, and go through their noisy, war-club dances. But their wild cannibal feasts are crimes of the past, and a Fiji who now strangled his friend's widow would no doubt be promptly hanged. Probably no other savage race responded so quickly to the white man's influence—once they came thoroughly under it—and today in the Fiji Islands a stranger may pass about in perfect peace and security. The reform of these cannibals is a monument to missionary heroism, and to the wise methods of the British in handling savage races. Of the 200 or more islands in the group, 80 are inhabited, and on every one of the 80 there stands an English Methodist church!

HUNTERS KILL 7,000 RABBITS

Work of 30 Men in Seven Hours' War Against the Pest in State of Colorado.

Gault, Colo.—All Colorado records for rabbit hunting were broken when two parties of hunters went out to clean up the country and came back at the end of seven hours with 7,000 rabbits, or at the rate of 1,000 an hour.

There were 15 men in each party, and the campaign was decided upon because the animals were eating large quantities of good hay, a valuable commodity since the heavy snowfall, which has sent the price soaring. One farmer lost a total of five tons of fine hay, which he might have sold for nearly \$100.

Accept Egg for Fare. Tarrytown, N. Y.—West Wood boarded a trolley with a hen in a basket. He couldn't find his fare. The hen cackled, laid an egg, and the conductor accepted it for fare.

It is cruel to force nauseating, harsh physic into a sick child.

Look back at your childhood days. Remember the "dose" mother insisted on—castor oil, calomel, cathartics. How you hated them, how you fought against taking them.

With our children it's different. Mothers who cling to the old form of physic simply don't realize what they do. The children's revolt is well-founded. Their tender little "insides" are injured by them.

If your child's stomach, liver and bowels need cleansing, give only delicious "California Syrup of Figs." Its action is positive, but gentle. Millions of mothers keep this harmless "fruit laxative" handy; they know children love to take it; that it never fails to clean the liver and bowels and sweeten the stomach, and that a teaspoonful given today saves a sick child tomorrow.

Ask at the store for a 50-cent bottle of "California Syrup of Figs," which has full directions for babies, children of all ages and for grown-ups plainly on each bottle. Adv.

Different Colors of Clouds.

In answer to a subscriber's question concerning the color of clouds, the Nature and Science department of St. Nicholas says: "White clouds are those which are so thin that sunlight comes through them, or else they are in such a position that the side seen by the observer is lighted by the sunlight. Black clouds are those that are so thick, or dense, that little sunlight passes through them, and at the same time are not illuminated by sunlight on the side seen by the observer. It is these heavy, large clouds that are most likely to produce rain.—St. Nicholas.

SUFFERED FOR 25 YEARS.

Mr. R. M. Fleenor, R. F. D. 39, Otterbein, Ind., writes: "I had been a sufferer from Kidney Trouble for about 25 years. I finally got so bad that I had to quit work, and doctors failed to do me any good. I kept getting worse all the time, and it at last turned to inflammation of the bladder, and I had given up all hope, when one day I received your little booklet advertising your pills, and resolved to try them. I did, and took only two boxes, and I am now sound and well. I regard my cure as remarkable. I can recommend Dodd's Kidney Pills to any one who is suffering from Kidney Trouble as I was." Write to Mr. Fleenor about this wonderful remedy.

Dodd's Kidney Pills, 50c. per box at your dealer or Dodd's Medicine Co., Buffalo, N. Y. Write for Household Hints, also music of National Anthem (English and German words) and recipes for dainty dishes. All 3 sent free. Adv.

The Man Without Folly.

William Dean Howells, apropos of the tercentenary of the birth of La Rochefoucauld, quoted at a dinner in Boston some of the famous Frenchman's maxims.

"La Rochefoucauld," said Mr. Howells, "wasn't the sorrowful misanthrope some people think, but a gay and gallant figure. His character was best portrayed, indeed, by one of his best maxims:

"He who is without folly is not so wise as he thinks."

FALLING HAIR MEANS DANDRUFF IS ACTIVE

Save Your Hair! Get a 25 Cent Dottle of Danderine Right Now—Also Stops Itching Scalp.

Thin, brittle, colorless and scraggy hair is mute evidence of a neglected scalp; of dandruff—that awful scurf. There is nothing so destructive to the hair as dandruff. It robs the hair of its luster, its strength and its very life; eventually producing a feverishness and itching of the scalp, which if not remedied causes the hair roots to shrink, loosen and die—then the hair falls out fast. A little Danderine tonight—now—any time—will surely save your hair.

Get a 25 cent bottle of Knowlton's Danderine from any store, and after the first application your hair will take on that life, luster and luxuriance which is so beautiful. It will become wavy and fluffy and have the appearance of abundance; an incomparable gloss and softness, but what will please you most will be after just a few weeks' use, when you will actually see a lot of fine, downy hair—new hair—growing all over the scalp. Adv.

Followed the Colors.

"And I suppose, like a brave soldier, you followed your colors." "Yes; whenever there was a battle, I noticed that the colors were flying, so I fled too."

It doesn't always take a sweeping assertion to throw dust in the other fellow's eyes.