people all told. It is difficult to see whence the necessary impetus for a national renascence is to come.... The universities are poor and spiritless, with no ambition to lead the country. I met a Boy Scout recently. He was hopeful in his way, but a little inadequate, I thought, as a basis for confidence in the future of the Empire.

We have still our Derby Day, of course....

Apart from these patriotic solicitudes, M. Blériot has set quite another train of thought going in my mind. The age of natural democracy is surely at an end through these machines. There comes a time when men will be sorted out into those who will have the knowledge, nerve, and courage to do these splendid, dangerous things, and those who will prefer the humbler level. I do not think numbers are going to matter so much in the warfare of the future, and that when organised intelligence differs from the majority, the majority will have no adequate power of retort. The common man with a pike, being only sufficiently indignant and abundant, could chase the eighteenth century gentleman as he chose, but I fail to see what he can do in the way of mischief to an elusive chevalier with wings. But that opens too wide a discussion for me to enter upon now.

MY FIRST FLIGHT

(EASTBOURNE, August 5, 1912--three years later.)

Hitherto my only flights have been flights of imagination but this morning I flew. I spent about ten or fifteen minutes in the air; we went out to sea, soared up, came back over the land, circled higher, planed steeply down to the water, and I landed with the conviction that I had had only the foretaste of a great store of hitherto unsuspected pleasures. At the first chance I will go up again, and I will go higher and further.

This experience has restored all the keenness of my ancient interest in flying, which had become a little fagged and flat by too much hearing and reading about the thing and not enough participation. Sixteen years ago, in the days of Langley and Lilienthal, I was one of the few journalists who believed and wrote that flying was possible; it affected my reputation unfavourably, and produced in the few discouraged pioneers of those days a quite touching gratitude. Over my mantel as I write hangs a very blurred and bad but interesting photograph that Professor Langley sent me sixteen years ago. It shows the flight of the first piece of human machinery heavier than air that ever kept itself up for any length of time. It was a model, a little affair that would not have lifted a cat; it went up in a spiral and came down unsmashed, bringing back, like Noah's dove, the promise of tremendous things.

That was only sixteen years ago, and it is amusing to recall how cautiously even we out-and-out believers did our prophesying. I was quite a desperate fellow; I said outright that in my lifetime we should see men flying. But I qualified that by repeating that for many years to come it would be an enterprise only for quite fantastic daring and skill. We conjured up stupendous difficulties and risks. I was deeply impressed and greatly discouraged by a paper a distinguished Cambridge mathematician produced to show that a flying machine was bound to pitch fearfully, that as it flew on its pitching must increase until up went its nose, down went its tail, and it fell like a knife. We exaggerated every possibility of instability. We imagined that when the aeroplane wasn't "kicking up ahind and afore" it would be heeling over to the lightest side wind. A sneeze might upset it. We contrasted our poor human equipment with the instinctive balance of a bird, which has had ten million years of evolution by way of a start....

The waterplane in which I soared over Eastbourne this morning with Mr. Grahame-White was as steady as a motor-car running on asphalt.

Then we went on from those anticipations of swaying insecurity to speculations about the psychological and physiological effects of flying. Most people who look down from the top of a cliff or high tower feel some slight qualms of dread, many feel a quite sickening dread. Even if men struggled high into the air, we asked, wouldn't they be smitten up there by such a lonely and reeling dismay as to lose all self-control? And, above all, wouldn't the pitching and tossing make

them quite horribly sea-sick?

I have always been a little haunted by that last dread. It gave a little undertow of funk to the mood of lively curiosity with which I got aboard the waterplane this morning--that sort of faint, thin funk that so readily invades one on the verge of any new experience; when one tries one's first dive, for example, or pushes off for the first time down an ice run. I thought I should very probably be sea-sick--or, to be more precise, air-sick; I thought also that I might be very giddy, and that I might get thoroughly cold and uncomfortable None of those things happened.

I am still in a state of amazement at the smooth steadfastness of the motion. There is nothing on earth to compare with that, unless--and that I can't judge--it is an ice yacht travelling on perfect ice. The finest motor-car in the world on the best road would be a joggling, quivering thing beside it.

To begin with, we went out to sea before the wind, and the plane would not readily rise. We went with an undulating movement, leaping with a light splashing pat upon the water, from wave to wave. Then we came about into the wind and rose, and looking over I saw that there were no longer those periodic flashes of white foam. I was flying. And it was as still and steady as dreaming. I watched the widening distance between our floats and the waves. It wasn't by any means a windless day; there was a brisk, fluctuating breeze blowing out of the north over the downs.

It seemed hardly to affect our flight at all.

And as for the giddiness of looking down, one does not feel it at all. It is difficult to explain why this should be so, but it is so. I suppose in such matters I am neither exceptionally steady-headed nor is my head exceptionally given to swimming. I can stand on the edge of cliffs of a thousand feet or so and look down, but I can never bring myself right up to the edge nor crane over to look to the very bottom. I should want to lie down to do that. And the other day I was on that Belvedere place at the top of the Rotterdam sky-scraper, a rather high wind was blowing, and one looks down through the chinks between the boards one stands on upon the heads of the people in the streets below; I didn't like it. But this morning I looked directly down on a little fleet of fishing boats over which we passed, and on the crowds assembling on the beach, and on the bathers who stared up at us from the breaking surf, with an entirely agreeable exaltation. And Eastbourne, in the early morning sunshine, had all the brightly detailed littleness of a town viewed from high up on the side of a great mountain.

When Mr. Grahame-White told me we were going to plane down I will confess I tightened my hold on the sides of the car and prepared for something like the down-going sensation of a switchback railway on a larger scale. Just for a moment there was that familiar feeling of something pressing one's heart up towards one's shoulders, and one's lower jaw up into its socket and of grinding one's lower teeth against the upper, and then it passed. The nose of the car and all the machine

was slanting downwards, we were gliding quickly down, and yet there was no feeling that one rushed, not even as one rushes in coasting a hill on a bicycle. It wasn't a tithe of the thrill of those three descents one gets on the great mountain railway in the White City. There one gets a disagreeable quiver up one's backbone from the wheels, and a real sense of falling.

It is quite peculiar to flying that one is incredulous of any collision. Some time ago I was in a motor-car that ran over and killed a small dog, and this wretched little incident has left an open wound upon my nerves. I am never quite happy in a car now; I can't help keeping an apprehensive eye ahead. But you fly with an exhilarating assurance that you cannot possibly run over anything or run into anything--except the land or the sea, and even those large essentials seem a beautifully safe distance away.

I had heard a great deal of talk about the deafening uproar of the engine. I counted a headache among my chances. There again reason reinforced conjecture. When in the early morning Mr. Travers came from Brighton in this Farman in which I flew I could hear the hum of the great insect when it still seemed abreast of Beachy Head, and a good two miles away. If one can hear a thing at two miles, how much the more will one not hear it at a distance of two yards? But at the risk of seeming too contented for anything I will assert I heard that noise no more than one hears the drone of an electric ventilator upon one's table. It was only when I came to speak to Mr. Grahame-White, or he to me, that I

discovered that our voices had become almost infinitesimally small.

And so it was I went up into the air at Eastbourne with the impression that flying was still an uncomfortable experimental, and slightly heroic thing to do, and came down to the cheerful gathering crowd upon the sands again with the knowledge that it is a thing achieved for everyone. It will get much cheaper, no doubt, and much swifter, and be improved in a dozen ways--we must get self-starting engines, for example, for both our aeroplanes and motor-cars--but it is available to-day for anyone who can reach it. An invalid lady of seventy could have enjoyed all that I did if only one could have got her into the passenger's seat. Getting there was a little difficult, it is true; the waterplane was out in the surf, and I was carried to it on a boatman's back, and then had to clamber carefully through the wires, but that is a matter of detail. This flying is indeed so certain to become a general experience that I am sure that this description will in a few years seem almost as quaint as if I had set myself to record the fears and sensations of my First Ride in a Wheeled Vehicle. And I suspect that learning to control a Farman waterplane now is probably not much more difficult than, let us say, twice the difficulty in learning the control and management of a motor-bicycle. I cannot understand the sort of young man who won't learn how to do it if he gets half a chance.

The development of these waterplanes is an important step towards the huge and swarming popularisation of flying which is now certainly imminent. We ancient survivors of those who believed in and wrote about

flying before there was any flying used to make a great fuss about the dangers and difficulties of landing and getting up. We wrote with vast gravity about "starting rails" and "landing stages," and it is still true that landing an aeroplane, except upon a well-known and quite level expanse, is a risky and uncomfortable business. But getting up and landing upon fairly smooth water is easier than getting into bed. This alone is likely to determine the aeroplane routes along the line of the world's coastlines and lake groups and waterways. The airmen will go to and fro over water as the midges do. Wherever there is a square mile of water the waterplanes will come and go like hornets at the mouth of their nest. But there are much stronger reasons than this convenience for keeping over water. Over water the air, it seems, lies in great level expanses; even when there are gales it moves in uniform masses like the swift, still rush of a deep river. The airman, in Mr. Grahame-White's phrase, can go to sleep on it. But over the land, and for thousands of feet up into the sky, the air is more irregular than a torrent among rocks; it is--if only we could see it--a waving, whirling, eddying, flamboyant confusion. A slight hill, a ploughed field, the streets of a town, create riotous, rolling, invisible streams and cataracts of air that catch the airman unawares, make him drop disconcertingly, try his nerves. With a powerful enough engine he climbs at once again, but these sudden downfalls are the least pleasant and most dangerous experience in aviation. They exact a tiring vigilance.

Over lake or sea, in sunshine, within sight of land, this is the perfect way of the flying tourist. Gladly would I have set out for France this

morning instead of returning to Eastbourne. And then coasted round to Spain and into the Mediterranean. And so by leisurely stages to India. And the East Indies....

I find my study unattractive to-day.