

## AN ARTIST'S TRIP THROUGH THE CLOUDS.



"Up in a balloon," as the phrase goes, is a term which seems always to have a certain amount of ridicule attached to it; but to those who have once experienced what it is to behold the wondrous phases of nature when viewed from the novel stand-point of a balloon car, the words convey

associations certainly more akin to the sublime than the ridiculous.

My first aerial trip was made recently in company with Mr. Henry Coxwell, the veteran aeronaut, who has accomplished close upon a thousand ascents; and I was fortunate, as he considers this, his latest, to be amongst the most useful of his experiences.

All the morning the weather had been sultry, and a violent thunderstorm broke over the Alexandra Palace—our starting-place—during the day, but towards the hour of departure the afternoon sun shone out brightly, lighting up the glittering grass and giving an appropriate lustre to the little balloon, "Gem," which was to carry us to the upper regions. She was by this time fully inflated and straining her cordage to be off to "the realms of air."

We now step into the basket and rise slightly from the ground, held only by a few friendly hands, and a single rope attached to the liberating iron, the latter looking very like a Brobdignagian tooth-drawing instrument. Mr. Coxwell sees that "all is right," and with the words "Stand clear!" pulls the handle of his big tooth-drawer, and we are off. Such is really the fact,

although it seems as if the earth, with the enormous crowd recently surrounding us, sinks down, and we are left behind motionless to watch the rapidly disappearing mass of upturned faces, and hear the shouts amalgamate into a dull roar, succeeded by profound silence and a stupendous sense of isolation.

My first feeling is one of astonishment at finding myself leaning out of the car, sketch-book in hand, noting the receding earth with the utmost equanimity—although I have always been a martyr to giddiness.

There is just time to take a parting glance at the variegated patchwork beneath, as we are already entering the clouds, and the Alexandra Palace and surrounding country become obscured by a blue haze, giving them the appearance of lying under water. Over London hangs a huge dense pall of brown smoke and lurid clouds, completely hiding the

City and stretching away for many miles till it joins the distant blue horizon. The latter curiously enough at this height takes a decidedly concave form—the result of refraction—and just the reverse of what might be expected. Beyond the horizon again tower bright Alpine





masses of very remote cumuli, standing in bold relief against a delicate bluish-green sky, and forming in their snowy purity a delightful contrast to the thick rolls of foul soot-clogged vapour, occupying the foreground of this weird and bewitching picture.

A few pieces of very thin paper are now thrown out, and flutter alongside like white butterflies, keeping nearly on the same level with us, thus showing that our course is almost horizontal, so a little ballast is next dropped overboard. In an instant the paper falls like lead, and we have shot up 400 feet.

We are now about a mile high, and the sight is magnificent. The earth is entirely concealed by compact layers of fleecy clouds, upon which the shadow of the balloon, at times faintly gleaming with prismatic colours, is depicted. This fairy-like opalesque spectre accompanies us for some distance, but gradually dissolves into "thin air" as we descend. The sky overhead is an intense Prussian blue without a cloud. Towards the west, huge fantastic cumuli with serrated edges of dazzling brightness are piled in grand bewildering chaos, the afternoon sun throwing their gigantic shadows upon the cloud-sea below from which they rear themselves; whilst far above, at a great altitude, and bathed in the all-pervading radiance, spring sinuous jets of feathery cirri in graceful curves like mighty fountains of the upper air.

In full enjoyment of this glorious scene, the solemn stillness broken only occasionally by harmonious sounds—the lowing of cattle, the bark of a dog, or the exchange of sentiments between distant farmyard cocks—we are suddenly startled by the sharp crack of a rifle and the simultaneous upward whirr of the ball. Some one has fired at us through a rift in the clouds, and we charitably hope that he has mistaken his target for a paper balloon without occupants, and does not belong to



that peculiar race of beings—we won't call them human—who delight in placing sleepers before express trains, in hopes of seeing a good smash.

Shortly after this little episode the car sustains a series of shocks, which Mr. Coxwell, having made a careful examination of the balloon both outside and in, can only account for as being due to the strong electric upper current, now bearing us along at the rate of sixty miles an hour. The grapple is partially lowered—not being a desirable companion under the circumstances—and some gas let out, which causes us to dip through the clouds and in a few minutes to be within hail of Mother Earth.

"Where *a-a-a-re* we?" shouts the captain, and his words are echoed by the silken dome overhead. As we cannot make out the reply, we decide to descend at once in a fallow field a short distance ahead.

The valve-line is pulled repeatedly; the gas pours out; fields, hedges, and trees rush upwards, and at the word of command, down—down—DOWN drops the grapple till it is imbedded in the soil, causing the

"Gem" to sway gently to the ground. Plenty of assistance is soon at hand, and we find ourselves in Essex, thirty-two miles from London, having travelled that distance in a little over half an hour. The "Gem" is soon packed carefully up in her basket, and we have a pleasant drive of eight miles across country to the nearest railway station. Jogging along in the gloaming, perched on the top of the car, I look upwards at the purple realms we have so lately quitted, and gazing on the darkening sky, recall the lines of Shelley—

"Cloudless skies and windless streams,  
Silent, liquid, and serene;  
As the birds within the wind,  
As the fish within the wave,  
As the thoughts of man's own mind  
Float through all above the grave,  
We make these our liquid lair,  
Voyaging cloud-like and unpent  
Through the boundless element."

W. BAZETT MURRAY.

## WITH THE WATER-FLEAS.

BY DR. ANDREW WILSON, F.R.S., EDIN.; LECTURER AT THE SCHOOL OF MEDICINE, EDINBURGH.



THE minute living specks which the eye can just detect in our fresh-water ponds and pools, actively swimming about amidst the other and smaller denizens of these miniature worlds, are familiar enough to all under the name of "Water-fleas." Their appearance is not unknown even to the observer whose zoology is of the most popular description. Their exact nature may, it is true, be a matter of strictly scientific concern. They have been

credited now and then with possessing, for the human race, somewhat of an interest in the shape of the possible contingencies which await the subject who unwittingly swallows these organisms and plays the part of host to them. But science assures us, first, of their thoroughly harmless nature; secondly, it informs us that the water-fleas, in event of their being ingested by us, have cause to fear us, not we to fear them; whilst, thirdly, we are told that their presence in water is no criterion of the unsuitability of that fluid for human use; these organisms making their appearance in the purest waters, as well as in the perhaps more congenial atmosphere of the stagnant pool.

It may form an appropriate subject for inquiry, in the first place, if we venture to propose the question "What is a water-flea?" The term "flea," applied

to these animals, has not been drawn from any fancied likeness to the insects which bear that name as a natural cognomen. We may regard the name rather as a general term, applied indiscriminately to a number of small organisms, which may be said to present nothing more than the most general likeness in ways and habits of life. Certain it is that the water-fleas are no "insects." Their aquatic habits, indeed, might tell us this much. Their relations with the insect-group are of a very distant kind, and perchance are about as distant as those which exist between a horse and a sheep. Both are quadrupeds, just as insects and water-fleas belong to a certain great division of the animal world, in which jointed legs and jointed bodies count for much as distinctive features. But water-fleas and insects are really as far apart, if not more widely removed than the quadrupeds just named. They possess with each other a general likeness of structure, but nothing more; and if we mention the fact that, whilst "insects" belong to the class of that name, the water-fleas find a place in another class—that of the *Crustacea*—we shall have indicated clearly enough the differences between the two groups. Thus the water-fleas find a home near the crabs, lobsters, shrimps, barnacles, and other tenants of the "vasty deep." And the characters which might serve, in a general way, to distinguish a lobster, may also serve to indicate the head-marks of the water-fleas. A lobster has its head and chest united together—forming the so-called "head" of the animal—and our water-flea's anatomy exhibits a like peculiarity. The lobster's legs and allied appendages are numerous, and are not limited as are the insect's legs to the chest-region of its frame; and the water-flea again agrees with its larger Crustacean neighbour in the distribution of its organs of motion. The lobster and water-flea have each two pairs of feelers, but the insect possesses one pair only;