

Chapter III

A VISITOR IS ANNOUNCED

The many experiments made during this last quarter of the nineteenth century have given considerable impetus to the question of guidable balloons. The cars furnished with propellers attached in 1852 to the aerostats of the elongated form introduced by Henry Giffard, the machines of Dupuy de Lome in 1872, of the Tissandier brothers in 1883, and of Captain Krebs and Renard in 1884, yielded many important results. But if these machines, moving in a medium heavier than themselves, maneuvering under the propulsion of a screw, working at an angle to the direction of the wind, and even against the wind, to return to their point of departure, had been really "guidable," they had only succeeded under very favorable conditions. In large, covered halls their success was perfect. In a calm atmosphere they did very well. In a light wind of five or six yards a second they still moved. But nothing practical had been obtained. Against a miller's wind--nine yards a second--the machines had remained almost stationary. Against a fresh breeze--eleven yards a second--they would have advanced backwards. In a storm--twenty-seven to thirty-three yards a second--they would have been blown about like a feather. In a hurricane--sixty yards a second--they would have run the risk of being dashed to pieces. And in one of those cyclones which exceed a hundred yards a second not a fragment of them would have been left.

It remained, then, even after the striking experiments of Captains Krebs and Renard, that though guidable aerostats had gained a little speed, they could not be kept going in a moderate breeze. Hence the impossibility of making practical use of this mode of aerial locomotion.

With regards to the means employed to give the aerostat its motion a great deal of progress had been made. For the steam engines of Henry Giffard, and the muscular force of Dupuy de Lome, electric motors had gradually been substituted. The batteries of bichromate of potassium of the Tissandier brothers had given a speed of four yards a second. The dynamo-electric machines of Captain Krebs and Renard had developed a force of twelve horsepower and yielded a speed of six and a half yards per second.

With regard to this motor, engineers and electricians had been approaching more and more to that desideratum which is known as a steam horse in a watch case. Gradually the results of the pile of which Captains Krebs and Renard had kept the secret had been surpassed, and aeronauts had become able to avail themselves of motors whose lightness increased at the same time as their power.

In this there was much to encourage those who believed in the utilization of guidable balloons. But yet how many good people there are who refuse to admit the possibility of such a thing! If the aerostat finds support in the air it belongs to the medium in which

it moves; under such conditions, how can its mass, which offers so much resistance to the currents of the atmosphere, make its way against the wind?

In this struggle of the inventors after a light and powerful motor, the Americans had most nearly attained what they sought. A dynamo-electric apparatus, in which a new pile was employed the composition of which was still a mystery, had been bought from its inventor, a Boston chemist up to then unknown. Calculations made with the greatest care, diagrams drawn with the utmost exactitude, showed that by means of this apparatus driving a screw of given dimensions a displacement could be obtained of from twenty to twenty-two yards a second.

Now this was magnificent!

"And it is not dear," said Uncle Prudent, as he handed to the inventor in return for his formal receipt the last installment of the hundred thousand paper dollars he had paid for his invention.

Immediately the Weldon Institute set to work. When there comes along a project of practical utility the money leaps nimbly enough from American pockets. The funds flowed in even without its being necessary to form a syndicate. Three hundred thousand dollars came into the club's account at the first appeal. The work began under the superintendence of the most celebrated aeronaut of the United States,

Harry W. Tinder, immortalized by three of his ascents out of a thousand, one in which he rose to a height of twelve thousand yards, higher than Gay Lussac, Coxwell, Sivet, Crocé-Spinelli, Tissandier, Glaisher; another in which he had crossed America from New York to San Francisco, exceeding by many hundred leagues the journeys of Nadar, Godard, and others, to say nothing of that of John Wise, who accomplished eleven hundred and fifty miles from St. Louis to Jefferson county; the third, which ended in a frightful fall from fifteen hundred feet at the cost of a slight sprain in the right thumb, while the less fortunate Pilâtre de Rozier fell only seven hundred feet, and yet killed himself on the spot!

At the time this story begins the Weldon Institute had got their work well in hand. In the Turner yard at Philadelphia there reposed an enormous aerostat, whose strength had been tried by highly compressed air. It well merited the name of the monster balloon.

How large was Nadar's Géant? Six thousand cubic meters. How large was John Wise's balloon? Twenty thousand cubic meters. How large was the Giffard balloon at the 1878 Exhibition? Twenty-five thousand cubic meters. Compare these three aerostats with the aerial machine of the Weldon Institute, whose volume amounted to forty thousand cubic meters, and you will understand why Uncle Prudent and his colleagues were so justifiably proud of it.

This balloon not being destined for the exploration of the higher

strata of the atmosphere, was not called the Excelsior, a name which is rather too much held in honor among the citizens of America. No! It was called, simply, the "Go-Ahead," and all it had to do was to justify its name by going ahead obediently to the wishes of its commander.

The dynamo-electric machine, according to the patent purchased by the Weldon Institute, was nearly ready. In less than six weeks the "Go-Ahead" would start for its first cruise through space.

But, as we have seen, all the mechanical difficulties had not been overcome. Many evenings had been devoted to discussing, not the form of its screw nor its dimensions, but whether it ought to be put behind, as the Tissandier brothers had done, or before as Captains Krebs and Renard had done. It is unnecessary to add that the partisans of the two systems had almost come to blows. The group of "Beforists" were equaled in number by the group of "Behindists." Uncle Prudent, who ought to have given the casting vote--Uncle Prudent, brought up doubtless in the school of Professor Buridan--could not bring himself to decide.

Hence the impossibility of getting the screw into place. The dispute might last for some time, unless the government interfered. But in the United States the government meddles with private affairs as little as it possibly can. And it is right.

Things were in this state at this meeting on the 13th of June, which threatened to end in a riot--insults exchanged, fisticuffs succeeding the insults, cane thrashings succeeding the fisticuffs, revolver shots succeeding the cane thrashings--when at thirty-seven minutes past eight there occurred a diversion.

The porter of the Weldon Institute coolly and calmly, like a policeman amid the storm of the meeting, approached the presidential desk. On it he placed a card. He awaited the orders that Uncle Prudent found it convenient to give.

Uncle Prudent turned on the steam whistle, which did duty for the presidential bell, for even the Kremlin clock would have struck in vain! But the tumult slackened not.

Then the president removed his hat. Thanks to this extreme measure a semi-silence was obtained.

"A communication!" said Uncle Prudent, after taking a huge pinch from the snuff-box which never left him.

"Speak up!" answered eighty-nine voices, accidentally in agreement on this one point.

"A stranger, my dear colleagues, asks to be admitted to the meeting."

"Never!" replied every voice.

"He desires to prove to us, it would appear," continued Uncle Prudent, "that to believe in guiding balloons is to believe in the absurdest of Utopias!"

"Let him in! Let him in!"

"What is the name of this singular personage?" asked secretary Phil Evans.

"Robur," replied Uncle Prudent.

"Robur! Robur! Robur!" yelled the assembly. And the welcome accorded so quickly to the curious name was chiefly due to the Weldon Institute hoping to vent its exasperation on the head of him who bore it!