

## Chapter IV

### IN WHICH A NEW CHARACTER APPEARS

"Citizens of the United States! My name is Robur. I am worthy of the name! I am forty years old, although I look but thirty, and I have a constitution of iron, a healthy vigor that nothing can shake, a muscular strength that few can equal, and a digestion that would be thought first class even in an ostrich!"

They were listening! Yes! The riot was quelled at once by the totally unexpected fashion of the speech. Was this fellow a madman or a hoaxer? Whoever he was, he kept his audience in hand. There was not a whisper in the meeting in which but a few minutes ago the storm was in full fury.

And Robur looked the man he said he was. Of middle height and geometric breadth, his figure was a regular trapezium with the greatest of its parallel sides formed by the line of his shoulders. On this line attached by a robust neck there rose an enormous spheroidal head. The head of what animal did it resemble from the point of view of passional analogy? The head of a bull; but a bull with an intelligent face. Eyes which at the least opposition would glow like coals of fire; and above them a permanent contraction of the superciliary muscle, an invariable sign of extreme energy. Short

hair, slightly woolly, with metallic reflections; large chest rising and falling like a smith's bellows; arms, hands, legs, feet, all worthy of the trunk. No mustaches, no whiskers, but a large American goatee, revealing the attachments of the jaw whose masseter muscles were evidently of formidable strength. It has been calculated--what has not been calculated?--that the pressure of the jaw of an ordinary crocodile can reach four hundred atmospheres, while that of a hound can only amount to one hundred. From this the following curious formula has been deduced: If a kilogram of dog produces eight kilograms of masseteric force, a kilogram of crocodile could produce twelve. Now, a kilogram of, the aforesaid Robur would not produce less than ten, so that he came between the dog and the crocodile.

From what country did this remarkable specimen come? It was difficult to say. One thing was noticeable, and that was that he expressed himself fluently in English without a trace of the drawling twang that distinguishes the Yankees of New England.

He continued: "And now, honorable citizens, for my mental faculties. You see before you an engineer whose nerves are in no way inferior to his muscles. I have no fear of anything or anybody. I have a strength of will that has never had to yield. When I have decided on a thing, all America, all the world, may strive in vain to keep me from it. When I have an idea, I allow no one to share it, and I do not permit any contradiction. I insist on these details, honorable citizens, because it is necessary you should quite understand me. Perhaps you

think I am talking too much about myself? It does not matter if you do! And now consider a little before you interrupt me, as I have come to tell you something that you may not be particularly pleased to hear."

A sound as of the surf on the beach began to rise along the first row of seats--a sign that the sea would not be long in getting stormy again.

"Speak, stranger!" said Uncle Prudent, who had some difficulty in restraining himself.

And Robur spoke as follows, without troubling himself any more about his audience.

"Yes! I know it well! After a century of experiments that have led to nothing, and trials giving no results, there still exist ill-balanced minds who believe in guiding balloons. They imagine that a motor of some sort, electric or otherwise, might be applied to their pretentious skin bags which are at the mercy of every current in the atmosphere. They persuade themselves that they can be masters of an aerostat as they can be masters of a ship on the surface of the sea. Because a few inventors in calm or nearly calm weather have succeeded in working an angle with the wind, or even beating to windward in a gentle breeze, they think that the steering of aerial apparatus lighter than the air is a practical matter. Well, now, look here; You

hundred, who believe in the realization of your dreams, are throwing your thousands of dollars not into water but into space! You are fighting the impossible!"

Strange as it was that at this affirmation the members of the Weldon Institute did not move. Had they become as deaf as they were patient? Or were they reserving themselves to see how far this audacious contradictor would dare to go?

Robur continued: "What? A balloon! When to obtain the raising of a couple of pounds you require a cubic yard of gas. A balloon pretending to resist the wind by aid of its mechanism, when the pressure of a light breeze on a vessel's sails is not less than that of four hundred horsepower; when in the accident at the Tay Bridge you saw the storm produce a pressure of eight and a half hundredweight on a square yard. A balloon, when on such a system nature has never constructed anything flying, whether furnished with wings like birds, or membranes like certain fish, or certain mammalia--"

"Mammalia?" exclaimed one of the members.

"Yes! Mammalia! The bat, which flies, if I am not mistaken! Is the gentleman unaware that this flyer is a mammal? Did he ever see an omelette made of bat's eggs?"

The interrupter reserved himself for future interruption, and Robur

resumed: "But does that mean that man is to give up the conquest of the air, and the transformation of the domestic and political manners of the old world, by the use of this admirable means of locomotion? By no means. As he has become master of the seas with the ship, by the oar, the sail, the wheel and the screw, so shall he become master of atmospherical space by apparatus heavier than the air--for it must be heavier to be stronger than the air!"

And then the assembly exploded. What a broadside of yells escaped from all these mouths, aimed at Robur like the muzzles of so many guns! Was not this hurling a declaration of war into the very camp of the balloonists? Was not this a stirring up of strife between 'the lighter' and 'the heavier' than air?

Robur did not even frown. With folded arms he waited bravely till silence was obtained.

By a gesture Uncle Prudent ordered the firing to cease.

"Yes," continued Robur, "the future is for the flying machine. The air affords a solid fulcrum. If you will give a column of air an ascensional movement of forty-five meters a second, a man can support himself on the top of it if the soles of his boots have a superficies of only the eighth of a square meter. And if the speed be increased to ninety meters, he can walk on it with naked feet. Or if, by means of a screw, you drive a mass of air at this speed, you get the same

result."

What Robur said had been said before by all the partisans of aviation, whose work slowly but surely is leading on to the solution of the problem. To Ponton d'Amécourt, La Landelle, Nadar, De Luzy, De Louvrié, Liais, Beleguir, Moreau, the brothers Richard, Babinet, Jobert, Du Temple, Salives, Penaud, De Villeneuve, Gauchot and Tatin, Michael Loup, Edison, Planavergne, and so many others, belongs the honor of having brought forward ideas of such simplicity. Abandoned and resumed times without number, they are sure, some day to triumph. To the enemies of aviation, who urge that the bird only sustains himself by warming the air he strikes, their answer is ready. Have they not proved that an eagle weighing five kilograms would have to fill fifty cubic meters with his warm fluid merely to sustain himself in space?

This is what Robur demonstrated with undeniable logic amid the uproar that arose on all sides. And in conclusion these are the words he hurled in the faces of the balloonists: "With your aerostats you can do nothing--you will arrive at nothing--you dare do nothing! The boldest of your aeronauts, John Wise, although he has made an aerial voyage of twelve hundred miles above the American continent, has had to give up his project of crossing the Atlantic! And you have not advanced one step--not one step--towards your end."

"Sir," said the president, who in vain endeavored to keep himself

cool, "you forget what was said by our immortal Franklin at the first appearance of the fire balloon, 'It is but a child, but it will grow!' It was but a child, and it has grown."

"No, Mr. President, it has not grown! It has got fatter--and this is not the same thing!"

This was a direct attack on the Weldon Institute, which had decreed, helped, and paid for the making of a monster balloon. And so propositions of the following kind began to fly about the room: "Turn him out!" "Throw him off the platform!" "Prove that he is heavier than the air!"

But these were only words, not means to an end.

Robur remained impassible, and continued: "There is no progress for your aerostats, my citizen balloonists; progress is for flying machines. The bird flies, and he is not a balloon, he is a piece of mechanism!"

"Yes, he flies!" exclaimed the fiery Bat T. Fynn; "but he flies against all the laws of mechanics."

"Indeed!" said Robur, shrugging his shoulders, and resuming, "Since we have begun the study of the flight of large and small birds one simple idea has prevailed--to imitate nature, which never makes

mistakes. Between the albatross, which gives hardly ten beats of the wing per minute, between the pelican, which gives seventy--"

"Seventy-one," said the voice of a scoffer.

"And the bee, which gives one hundred and ninety-two per second--"

"One hundred and ninety-three!" said the facetious individual.

"And, the common house fly, which gives three hundred and thirty--"

"And a half!"

"And the mosquito, which gives millions--"

"No, milliards!"

But Robur, the interrupted, interrupted not his demonstration.

"Between these different rates--" he continued.

"There is a difference," said a voice.

"There is a possibility of finding a practical solution. When De Lucy showed that the stag beetle, an insect weighing only two grammes, could lift a weight of four hundred grammes, or two hundred times its own weight, the problem of aviation was solved. Besides, it has been



shown that the wing surface decreases in proportion to the increase of the size and weight of the animal. Hence we can look forward to such contrivances--"

"Which would never fly!" said secretary Phil Evans.

"Which have flown, and which will fly," said Robur, without being in the least disconcerted, "and which we can call streophores, helicopters, orthopters--or, in imitation of the word 'nef,' which comes from 'navis,' call them from 'avis,' 'efs,'--by means of which man will become the master of space. The helix--"

"Ah, the helix!" replied Phil Evans. "But the bird has no helix; that we know!"

"So," said Robur; "but Penaud has shown that in reality the bird makes a helix, and its flight is helicopteral. And the motor of the future is the screw--"

"From such a maladee Saint Helix keep us free!" sung out one of the members, who had accidentally hit upon the air from Herold's "Zampa."

And they all took up the chorus: "From such a maladee Saint Helix keep us free!" with such intonations and variations as would have made the French composer groan in his grave.

As the last notes died away in a frightful discord Uncle Prudent took advantage of the momentary calm to say, "Stranger, up to now, we let you speak without interruption." It seemed that for the president of the Weldon Institute shouts, yells, and catcalls were not interruptions, but only an exchange of arguments.

"But I may remind you, all the same, that the theory of aviation is condemned beforehand, and rejected by the majority of American and foreign engineers. It is a system which was the cause of the death of the Flying Saracen at Constantinople, of the monk Volador at Lisbon, of De Leturn in 1852, of De Groof in 1864, besides the victims I forget since the mythological Icarus--"

"A system," replied Robur, "no more to be condemned than that whose martyrology contains the names of Pilâtre de Rozier at Calais, of Blanchard at Paris, of Donaldson and Grimwood in Lake Michigan, of Sivel and of Crocé-Spinelli, and others whom it takes good care, to forget."

This was a counter-thrust with a vengeance.

"Besides," continued Robur, "With your balloons as good as you can make them you will never obtain any speed worth mentioning. It would take you ten years to go round the world--and a flying machine could do it in a week!"

Here arose a new tempest of protests and denials which lasted for three long minutes. And then Phil Evans look up the word.

"Mr. Aviator," he said "you who talk so much of the benefits of aviation, have you ever aviated?"

"I have."

"And made the conquest of the air?"

"Not unlikely."

"Hooray for Robur the Conqueror!" shouted an ironical voice.

"Well, yes! Robur the Conqueror! I accept the name and I will bear it, for I have a right to it!"

"We beg to doubt it!" said Jem Chip.

"Gentlemen," said Robur, and his brows knit, "when I have just seriously stated a serious thing I do not permit anyone to reply to me by a flat denial, and I shall be glad to know the name of the interrupter."

"My name is Chip, and I am a vegetarian."

"Citizen Chip," said Robur, "I knew that vegetarians had longer alimentary canals than other men--a good foot longer at the least. That is quite long enough; and so do not compel me to make you any longer by beginning at your ears and--"

"Throw him out."

"Into the street with him!"

"Lynch him!"

"Helix him!"

The rage of the balloonists burst forth at last. They rushed at the platform. Robur disappeared amid a sheaf of hands that were thrown about as if caught in a storm. In vain the steam whistle screamed its fanfares on to the assembly. Philadelphia might well think that a fire was devouring one of its quarters and that all the waters of the Schuyllkill could not put it out.

Suddenly there was a recoil in the tumult. Robur had put his hands into his pockets and now held them out at the front ranks of the infuriated mob.

In each hand was one of those American institutions known as revolvers which the mere pressure of the fingers is enough to

fire--pocket mitrailleuses in fact.

And taking advantage not only of the recoil of his assailants but also of the silence which accompanied it.

"Decidedly," said he, "it was not Amerigo that discovered the New World, it was Cabot! You are not Americans, citizen balloonists! You are only Cabo--"

Four or five shots cracked out, fired into space. They hurt nobody. Amid the smoke, the engineer vanished; and when it had thinned away there was no trace of him. Robur the Conqueror had flown, as if some apparatus of aviation had borne him into the air.