

Chapter 2

The First Making of Cavorite

But Cavor's fears were groundless, so far as the actual making was concerned. On the 14th of October, 1899, this incredible substance was made!

Oddly enough, it was made at last by accident, when Mr. Cavor least expected it. He had fused together a number of metals and certain other things--I wish I knew the particulars now!--and he intended to leave the mixture a week and then allow it to cool slowly. Unless he had miscalculated, the last stage in the combination would occur when the stuff sank to a temperature of 60 degrees Fahrenheit. But it chanced that, unknown to Cavor, dissension had arisen about the furnace tending. Gibbs, who had previously seen to this, had suddenly attempted to shift it to the man who had been a gardener, on the score that coal was soil, being dug, and therefore could not possibly fall within the province of a joiner; the man who had been a jobbing gardener alleged, however, that coal was a metallic or ore-like substance, let alone that he was cook. But Spargus insisted on Gibbs doing the coaling, seeing that he was a joiner and that coal is notoriously fossil wood. Consequently Gibbs ceased to replenish the furnace, and no one else did so, and Cavor was

too much immersed in certain interesting problems concerning a Cavorite flying machine (neglecting the resistance of the air and one or two other points) to perceive that anything was wrong. And the premature birth of his invention took place just as he was coming across the field to my bungalow for our afternoon talk and tea.

I remember the occasion with extreme vividness. The water was boiling, and everything was prepared, and the sound of his "zuzzoo" had brought me out upon the verandah. His active little figure was black against the autumnal sunset, and to the right the chimneys of his house just rose above a gloriously tinted group of trees. Remoter rose the Wealden Hills, faint and blue, while to the left the hazy marsh spread out spacious and serene. And then--

The chimneys jerked heavenward, smashing into a string of bricks as they rose, and the roof and a miscellany of furniture followed. Then overtaking them came a huge white flame. The trees about the building swayed and whirled and tore themselves to pieces, that sprang towards the flare. My ears were smitten with a clap of thunder that left me deaf on one side for life, and all about me windows smashed, unheeded.

I took three steps from the verandah towards Cavor's house, and even as I did so came the wind.

Instantly my coat tails were over my head, and I was progressing in great leaps and bounds, and quite against my will, towards him. In the same

moment the discoverer was seized, whirled about, and flew through the screaming air. I saw one of my chimney pots hit the ground within six yards of me, leap a score of feet, and so hurry in great strides towards the focus of the disturbance. Cavor, kicking and flapping, came down again, rolled over and over on the ground for a space, struggled up and was lifted and borne forward at an enormous velocity, vanishing at last among the labouring, lashing trees that writhed about his house.

A mass of smoke and ashes, and a square of bluish shining substance rushed up towards the zenith. A large fragment of fencing came sailing past me, dropped edgeways, hit the ground and fell flat, and then the worst was over. The aerial commotion fell swiftly until it was a mere strong gale, and I became once more aware that I had breath and feet. By leaning back against the wind I managed to stop, and could collect such wits as still remained to me.

In that instant the whole face of the world had changed. The tranquil sunset had vanished, the sky was dark with scurrying clouds, everything was flattened and swaying with the gale. I glanced back to see if my bungalow was still in a general way standing, then staggered forwards towards the trees amongst which Cavor had vanished, and through whose tall and leaf-denuded branches shone the flames of his burning house.

I entered the copse, dashing from one tree to another and clinging to them, and for a space I sought him in vain. Then amidst a heap of smashed branches and fencing that had banked itself against a portion of his

garden wall I perceived something stir. I made a run for this, but before I reached it a brown object separated itself, rose on two muddy legs, and protruded two drooping, bleeding hands. Some tattered ends of garment fluttered out from its middle portion and streamed before the wind.

For a moment I did not recognise this earthy lump, and then I saw that it was Cavor, caked in the mud in which he had rolled. He leant forward against the wind, rubbing the dirt from his eyes and mouth.

He extended a muddy lump of hand, and staggered a pace towards me. His face worked with emotion, little lumps of mud kept falling from it. He looked as damaged and pitiful as any living creature I have ever seen, and his remark therefore amazed me exceedingly.

"Gratulate me," he gasped; "gratulate me!"

"Congratulate you!" said I. "Good heavens! What for?"

"I've done it."

"You have. What on earth caused that explosion?"

A gust of wind blew his words away. I understood him to say that it wasn't an explosion at all. The wind hurled me into collision with him, and we stood clinging to one another.

"Try and get back--to my bungalow," I bawled in his ear. He did not hear me, and shouted something about "three martyrs--science," and also something about "not much good." At the time he laboured under the impression that his three attendants had perished in the whirlwind. Happily this was incorrect. Directly he had left for my bungalow they had gone off to the public-house in Lympne to discuss the question of the furnaces over some trivial refreshment.

I repeated my suggestion of getting back to my bungalow, and this time he understood. We clung arm-in-arm and started, and managed at last to reach the shelter of as much roof as was left to me. For a space we sat in arm-chairs and panted. All the windows were broken, and the lighter articles of furniture were in great disorder, but no irrevocable damage was done. Happily the kitchen door had stood the pressure upon it, so that all my crockery and cooking materials had survived. The oil stove was still burning, and I put on the water to boil again for tea. And that prepared, I could turn on Cavor for his explanation.

"Quite correct," he insisted; "quite correct. I've done it, and it's all right."

"But," I protested. "All right! Why, there can't be a rick standing, or a fence or a thatched roof undamaged for twenty miles round...."

"It's all right--really. I didn't, of course, foresee this little upset.

My mind was preoccupied with another problem, and I'm apt to disregard

these practical side issues. But it's all right--"

"My dear sir," I cried, "don't you see you've done thousands of pounds' worth of damage?"

"There, I throw myself on your discretion. I'm not a practical man, of course, but don't you think they will regard it as a cyclone?"

"But the explosion--"

"It was not an explosion. It's perfectly simple. Only, as I say, I'm apt to overlook these little things. It's that zuzzoo business on a larger scale. Inadvertently I made this substance of mine, this Cavorite, in a thin, wide sheet...."

He paused. "You are quite clear that the stuff is opaque to gravitation, that it cuts off things from gravitating towards each other?"

"Yes," said I. "Yes."

"Well, so soon as it reached a temperature of 60 degrees Fahrenheit, and the process of its manufacture was complete, the air above it, the portions of roof and ceiling and floor above it ceased to have weight. I suppose you know--everybody knows nowadays--that, as a usual thing, the air has weight, that it presses on everything at the surface of the earth, presses in all directions, with a pressure of fourteen and a half

pounds to the square inch?"

"I know that," said I. "Go on."

"I know that too," he remarked. "Only this shows you how useless knowledge is unless you apply it. You see, over our Cavorite this ceased to be the case, the air there ceased to exert any pressure, and the air round it and not over the Cavorite was exerting a pressure of fourteen pounds and a half to the square in upon this suddenly weightless air. Ah! you begin to see! The air all about the Cavorite crushed in upon the air above it with irresistible force. The air above the Cavorite was forced upward violently, the air that rushed in to replace it immediately lost weight, ceased to exert any pressure, followed suit, blew the ceiling through and the roof off...."

"You perceive," he said, "it formed a sort of atmospheric fountain, a kind of chimney in the atmosphere. And if the Cavorite itself hadn't been loose and so got sucked up the chimney, does it occur to you what would have happened?"

I thought. "I suppose," I said, "the air would be rushing up and up over that infernal piece of stuff now."

"Precisely," he said. "A huge fountain--"

"Spouting into space! Good heavens! Why, it would have squirted all the

atmosphere of the earth away! It would have robbed the world of air! It would have been the death of all mankind! That little lump of stuff!"

"Not exactly into space," said Cavor, "but as bad--practically. It would have whipped the air off the world as one peels a banana, and flung it thousands of miles. It would have dropped back again, of course--but on an asphyxiated world! From our point of view very little better than if it never came back!"

I stared. As yet I was too amazed to realise how all my expectations had been upset. "What do you mean to do now?" I asked.

"In the first place if I may borrow a garden trowel I will remove some of this earth with which I am encased, and then if I may avail myself of your domestic conveniences I will have a bath. This done, we will converse more at leisure. It will be wise, I think"--he laid a muddy hand on my arm--"if nothing were said of this affair beyond ourselves. I know I have caused great damage--probably even dwelling-houses may be ruined here and there upon the country-side. But on the other hand, I cannot possibly pay for the damage I have done, and if the real cause of this is published, it will lead only to heartburning and the obstruction of my work. One cannot foresee everything, you know, and I cannot consent for one moment to add the burthen of practical considerations to my theorising. Later on, when you have come in with your practical mind, and Cavorite is floated--floated is the word, isn't it?--and it has realised all you anticipate for it, we may set matters right with these persons. But not

now--not now. If no other explanation is offered, people, in the present unsatisfactory state of meteorological science, will ascribe all this to a cyclone; there might be a public subscription, and as my house has collapsed and been burnt, I should in that case receive a considerable share in the compensation, which would be extremely helpful to the prosecution of our researches. But if it is known that I caused this, there will be no public subscription, and everybody will be put out. Practically I should never get a chance of working in peace again. My three assistants may or may not have perished. That is a detail. If they have, it is no great loss; they were more zealous than able, and this premature event must be largely due to their joint neglect of the furnace. If they have not perished, I doubt if they have the intelligence to explain the affair. They will accept the cyclone story. And if during the temporary unfitness of my house for occupation, I may lodge in one of the untenanted rooms of this bungalow of yours--"

He paused and regarded me.

A man of such possibilities, I reflected, is no ordinary guest to entertain.

"Perhaps," said I, rising to my feet, "we had better begin by looking for a trowel," and I led the way to the scattered vestiges of the greenhouse.

And while he was having his bath I considered the entire question alone.

It was clear there were drawbacks to Mr. Cavor's society I had not

foreseen. The absentmindedness that had just escaped depopulating the terrestrial globe, might at any moment result in some other grave inconvenience. On the other hand I was young, my affairs were in a mess, and I was in just the mood for reckless adventure--with a chance of something good at the end of it. I had quite settled in my mind that I was to have half at least in that aspect of the affair. Fortunately I held my bungalow, as I have already explained, on a three-year agreement, without being responsible for repairs; and my furniture, such as there was of it, had been hastily purchased, was unpaid for, insured, and altogether devoid of associations. In the end I decided to keep on with him, and see the business through.

Certainly the aspect of things had changed very greatly. I no longer doubted at all the enormous possibilities of the substance, but I began to have doubts about the gun-carriage and the patent boots. We set to work at once to reconstruct his laboratory and proceed with our experiments. Cavor talked more on my level than he had ever done before, when it came to the question of how we should make the stuff next.

"Of course we must make it again," he said, with a sort of glee I had not expected in him, "of course we must make it again. We have caught a Tartar, perhaps, but we have left the theoretical behind us for good and all. If we can possibly avoid wrecking this little planet of ours, we will. But--there must be risks! There must be. In experimental work there always are. And here, as a practical man, you must come in. For my own part it seems to me we might make it edgeways, perhaps, and very thin. Yet

I don't know. I have a certain dim perception of another method. I can hardly explain it yet. But curiously enough it came into my mind, while I was rolling over and over in the mud before the wind, and very doubtful how the whole adventure was to end, as being absolutely the thing I ought to have done."

Even with my aid we found some little difficulty, and meanwhile we kept at work restoring the laboratory. There was plenty to do before it became absolutely necessary to decide upon the precise form and method of our second attempt. Our only hitch was the strike of the three labourers, who objected to my activity as a foreman. But that matter we compromised after two days' delay.