The First Men In The Moon

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THE FIRST MEN IN THE MOON

Chapter 1

Mr. Bedford Meets Mr. Cavor at Lympne

As I sit down to write here amidst the shadows of vine-leaves under the blue sky of southern Italy, it comes to me with a certain quality of astonishment that my participation in these amazing adventures of Mr. Cavor was, after all, the outcome of the purest accident. It might have been any one. I fell into these things at a time when I thought myself removed from the slightest possibility of disturbing experiences. I had gone to Lympne because I had imagined it the most uneventful place in the world. "Here, at any rate," said I, "I shall find peace and a chance to work!"

And this book is the sequel. So utterly at variance is destiny with all the little plans of men. I may perhaps mention here that very recently I had come an ugly cropper in certain business enterprises. Sitting now surrounded by all the circumstances of wealth, there is a luxury in admitting my extremity. I can admit, even, that to a certain extent my disasters were conceivably of my own making. It may be there are directions in which I have some capacity, but the conduct of business

operations is not among these. But in those days I was young, and my youth among other objectionable forms took that of a pride in my capacity for affairs. I am young still in years, but the things that have happened to me have rubbed something of the youth from my mind. Whether they have brought any wisdom to light below it is a more doubtful matter.

It is scarcely necessary to go into the details of the speculations that landed me at Lympne, in Kent. Nowadays even about business transactions there is a strong spice of adventure. I took risks. In these things there is invariably a certain amount of give and take, and it fell to me finally to do the giving reluctantly enough. Even when I had got out of everything, one cantankerous creditor saw fit to be malignant. Perhaps you have met that flaming sense of outraged virtue, or perhaps you have only felt it. He ran me hard. It seemed to me, at last, that there was nothing for it but to write a play, unless I wanted to drudge for my living as a clerk. I have a certain imagination, and luxurious tastes, and I meant to make a vigorous fight for it before that fate overtook me. In addition to my belief in my powers as a business man, I had always in those days had an idea that I was equal to writing a very good play. It is not, I believe, a very uncommon persuasion. I knew there is nothing a man can do outside legitimate business transactions that has such opulent possibilities, and very probably that biased my opinion. I had, indeed, got into the habit of regarding this unwritten drama as a convenient little reserve put by for a rainy day. That rainy day had come, and I set to work.

I soon discovered that writing a play was a longer business than I had supposed; at first I had reckoned ten days for it, and it was to have a pied-a-terre while it was in hand that I came to Lympne. I reckoned myself lucky in getting that little bungalow. I got it on a three years' agreement. I put in a few sticks of furniture, and while the play was in hand I did my own cooking. My cooking would have shocked Mrs. Bond. And yet, you know, it had flavour. I had a coffee-pot, a sauce-pan for eggs, and one for potatoes, and a frying-pan for sausages and bacon--such was the simple apparatus of my comfort. One cannot always be magnificent, but simplicity is always a possible alternative. For the rest I laid in an eighteen-gallon cask of beer on credit, and a trustful baker came each day. It was not, perhaps, in the style of Sybaris, but I have had worse times. I was a little sorry for the baker, who was a very decent man indeed, but even for him I hoped.

Certainly if any one wants solitude, the place is Lympne. It is in the clay part of Kent, and my bungalow stood on the edge of an old sea cliff and stared across the flats of Romney Marsh at the sea. In very wet weather the place is almost inaccessible, and I have heard that at times the postman used to traverse the more succulent portions of his route with boards upon his feet. I never saw him doing so, but I can quite imagine it. Outside the doors of the few cottages and houses that make up the present village big birch besoms are stuck, to wipe off the worst of the clay, which will give some idea of the texture of the district. I doubt if the place would be there at all, if it were not a fading memory of things gone for ever. It was the big port of England in Roman times, Portus

Lemanis, and now the sea is four miles away. All down the steep hill are boulders and masses of Roman brickwork, and from it old Watling Street, still paved in places, starts like an arrow to the north. I used to stand on the hill and think of it all, the galleys and legions, the captives and officials, the women and traders, the speculators like myself, all the swarm and tumult that came clanking in and out of the harbour. And now just a few lumps of rubble on a grassy slope, and a sheep or two--and I. And where the port had been were the levels of the marsh, sweeping round in a broad curve to distant Dungeness, and dotted here and there with tree clumps and the church towers of old medical towns that are following Lemanis now towards extinction.

That outlook on the marsh was, indeed, one of the finest views I have ever seen. I suppose Dungeness was fifteen miles away; it lay like a raft on the sea, and farther westward were the hills by Hastings under the setting sun. Sometimes they hung close and clear, sometimes they were faded and low, and often the drift of the weather took them clean out of sight. And all the nearer parts of the marsh were laced and lit by ditches and canals.

The window at which I worked looked over the skyline of this crest, and it was from this window that I first set eyes on Cavor. It was just as I was struggling with my scenario, holding down my mind to the sheer hard work of it, and naturally enough he arrested my attention.

The sun had set, the sky was a vivid tranquillity of green and yellow, and

against that he came out black--the oddest little figure.

He was a short, round-bodied, thin-legged little man, with a jerky quality in his motions; he had seen fit to clothe his extraordinary mind in a cricket cap, an overcoat, and cycling knickerbockers and stockings. Why he did so I do not know, for he never cycled and he never played cricket. It was a fortuitous concurrence of garments, arising I know not how. He gesticulated with his hands and arms, and jerked his head about and buzzed. He buzzed like something electric. You never heard such buzzing. And ever and again he cleared his throat with a most extraordinary noise.

There had been rain, and that spasmodic walk of his was enhanced by the extreme slipperiness of the footpath. Exactly as he came against the sun he stopped, pulled out a watch, hesitated. Then with a sort of convulsive gesture he turned and retreated with every manifestation of haste, no longer gesticulating, but going with ample strides that showed the relatively large size of his feet--they were, I remember, grotesquely exaggerated in size by adhesive clay--to the best possible advantage.

This occurred on the first day of my sojourn, when my play-writing energy was at its height and I regarded the incident simply as an annoying distraction--the waste of five minutes. I returned to my scenario. But when next evening the apparition was repeated with remarkable precision, and again the next evening, and indeed every evening when rain was not falling, concentration upon the scenario became a considerable effort.

"Confound the man," I said, "one would think he was learning to be a

marionette!" and for several evenings I cursed him pretty heartily. Then my annoyance gave way to amazement and curiosity. Why on earth should a man do this thing? On the fourteenth evening I could stand it no longer, and so soon as he appeared I opened the french window, crossed the verandah, and directed myself to the point where he invariably stopped.

He had his watch out as I came up to him. He had a chubby, rubicund face with reddish brown eyes--previously I had seen him only against the light. "One moment, sir," said I as he turned. He stared. "One moment," he said, "certainly. Or if you wish to speak to me for longer, and it is not asking too much--your moment is up--would it trouble you to accompany me?"

"Not in the least," said I, placing myself beside him.

"My habits are regular. My time for intercourse--limited."

"This, I presume, is your time for exercise?"

"It is. I come here to enjoy the sunset."

"You don't."

"Sir?"

"You never look at it."

"Never look at it?"

"No. I've watched you thirteen nights, and not once have you looked at the sunset--not once."

He knitted his brows like one who encounters a problem.

"Well, I enjoy the sunlight--the atmosphere--I go along this path, through that gate"--he jerked his head over his shoulder--"and round--"

"You don't. You never have been. It's all nonsense. There isn't a way.

To-night for instance--"

"Oh! to-night! Let me see. Ah! I just glanced at my watch, saw that I had already been out just three minutes over the precise half-hour, decided there was not time to go round, turned--"

"You always do."

He looked at me--reflected. "Perhaps I do, now I come to think of it. But what was it you wanted to speak to me about?"

"Why, this!"

"This?"

"Yes. Why do you do it? Every night you come making a noise--"

"Making a noise?"

"Like this." I imitated his buzzing noise. He looked at me, and it was evident the buzzing awakened distaste. "Do I do that?" he asked.

"Every blessed evening."

"I had no idea."

He stopped dead. He regarded me gravely. "Can it be," he said, "that I have formed a Habit?"

"Well, it looks like it. Doesn't it?"

He pulled down his lower lip between finger and thumb. He regarded a puddle at his feet.

"My mind is much occupied," he said. "And you want to know why! Well, sir, I can assure you that not only do I not know why I do these things, but I did not even know I did them. Come to think, it is just as you say;
I never have been beyond that field.... And these things annoy you?"

For some reason I was beginning to relent towards him. "Not annoy,"

I said. "But--imagine yourself writing a play!"

"I couldn't."

"Well, anything that needs concentration."

"Ah!" he said, "of course," and meditated. His expression became so eloquent of distress, that I relented still more. After all, there is a touch of aggression in demanding of a man you don't know why he hums on a public footpath.

"You see," he said weakly, "it's a habit."

"Oh, I recognise that."

"I must stop it."

"But not if it puts you out. After all, I had no business--it's something of a liberty."

"Not at all, sir," he said, "not at all. I am greatly indebted to you. I should guard myself against these things. In future I will. Could I trouble you--once again? That noise?"

"Something like this," I said. "Zuzzoo, zuzzoo. But really, you know--"

"I am greatly obliged to you. In fact, I know I am getting absurdly absent-minded. You are quite justified, sir--perfectly justified. Indeed, I am indebted to you. The thing shall end. And now, sir, I have already brought you farther than I should have done."

"I do hope my impertinence--"

"Not at all, sir, not at all."

We regarded each other for a moment. I raised my hat and wished him a good evening. He responded convulsively, and so we went our ways.

At the stile I looked back at his receding figure. His bearing had changed remarkably, he seemed limp, shrunken. The contrast with his former gesticulating, zuzzoing self took me in some absurd way as pathetic. I watched him out of sight. Then wishing very heartily I had kept to my own business, I returned to my bungalow and my play.

The next evening I saw nothing of him, nor the next. But he was very much in my mind, and it had occurred to me that as a sentimental comic character he might serve a useful purpose in the development of my plot. The third day he called upon me.

For a time I was puzzled to think what had brought him. He made indifferent conversation in the most formal way, then abruptly he came to business. He wanted to buy me out of my bungalow.

"You see," he said, "I don't blame you in the least, but you've destroyed a habit, and it disorganises my day. I've walked past here for years--years. No doubt I've hummed.... You've made all that impossible!"

I suggested he might try some other direction.

"No. There is no other direction. This is the only one. I've inquired.

And now--every afternoon at four--I come to a dead wall."

"But, my dear sir, if the thing is so important to you--"

"It's vital. You see, I'm--I'm an investigator--I am engaged in a scientific research. I live--" he paused and seemed to think. "Just over there," he said, and pointed suddenly dangerously near my eye. "The house with white chimneys you see just over the trees. And my circumstances are abnormal--abnormal. I am on the point of completing one of the most important--demonstrations--I can assure you one of the most important demonstrations that have ever been made. It requires constant thought, constant mental ease and activity. And the afternoon was my brightest time!--effervescing with new ideas--new points of view."

"But why not come by still?"

"It would be all different. I should be self-conscious. I should think of you at your play--watching me irritated--instead of thinking of my work.

I meditated. Naturally, I wanted to think the matter over thoroughly before anything decisive was said. I was generally ready enough for business in those days, and selling always attracted me; but in the first place it was not my bungalow, and even if I sold it to him at a good price I might get inconvenienced in the delivery of goods if the current owner got wind of the transaction, and in the second I was, well--undischarged. It was clearly a business that required delicate handling. Moreover, the possibility of his being in pursuit of some valuable invention also interested me. It occurred to me that I would like to know more of this research, not with any dishonest intention, but simply with an idea that to know what it was would be a relief from play-writing. I threw out feelers.

He was quite willing to supply information. Indeed, once he was fairly under way the conversation became a monologue. He talked like a man long pent up, who has had it over with himself again and again. He talked for nearly an hour, and I must confess I found it a pretty stiff bit of listening. But through it all there was the undertone of satisfaction one feels when one is neglecting work one has set oneself. During that first interview I gathered very little of the drift of his work. Half his words were technicalities entirely strange to me, and he illustrated one or two points with what he was pleased to call elementary mathematics, computing on an envelope with a copying-ink pencil, in a manner that made it hard even to seem to understand. "Yes," I said, "yes. Go on!" Nevertheless I

made out enough to convince me that he was no mere crank playing at discoveries. In spite of his crank-like appearance there was a force about him that made that impossible. Whatever it was, it was a thing with mechanical possibilities. He told me of a work-shed he had, and of three assistants--originally jobbing carpenters--whom he had trained. Now, from the work-shed to the patent office is clearly only one step. He invited me to see those things. I accepted readily, and took care, by a remark or so, to underline that. The proposed transfer of the bungalow remained very conveniently in suspense.

At last he rose to depart, with an apology for the length of his call.

Talking over his work was, he said, a pleasure enjoyed only too rarely. It was not often he found such an intelligent listener as myself, he mingled very little with professional scientific men.

"So much pettiness," he explained; "so much intrigue! And really, when one has an idea--a novel, fertilising idea--I don't want to be uncharitable, but--"

I am a man who believes in impulses. I made what was perhaps a rash proposition. But you must remember, that I had been alone, play-writing in Lympne, for fourteen days, and my compunction for his ruined walk still hung about me. "Why not," said I, "make this your new habit? In the place of the one I spoilt? At least, until we can settle about the bungalow. What you want is to turn over your work in your mind. That you have always done during your afternoon walk. Unfortunately that's over--you can't get

things back as they were. But why not come and talk about your work to me; use me as a sort of wall against which you may throw your thoughts and catch them again? It's certain I don't know enough to steal your ideas myself--and I know no scientific men--"

I stopped. He was considering. Evidently the thing, attracted him. "But I'm afraid I should bore you," he said.

"You think I'm too dull?"

"Oh, no; but technicalities--"

"Anyhow, you've interested me immensely this afternoon."

"Of course it would be a great help to me. Nothing clears up one's ideas so much as explaining them. Hitherto--"

"My dear sir, say no more."

"But really can you spare the time?"

"There is no rest like change of occupation," I said, with profound conviction.

The affair was over. On my verandah steps he turned. "I am already greatly indebted to you," he said.

I made an interrogative noise.

"You have completely cured me of that ridiculous habit of humming," he explained.

I think I said I was glad to be of any service to him, and he turned away.

Immediately the train of thought that our conversation had suggested must have resumed its sway. His arms began to wave in their former fashion.

The faint echo of "zuzzoo" came back to me on the breeze....

Well, after all, that was not my affair....

He came the next day, and again the next day after that, and delivered two lectures on physics to our mutual satisfaction. He talked with an air of being extremely lucid about the "ether" and "tubes of force," and "gravitational potential," and things like that, and I sat in my other folding-chair and said, "Yes," "Go on," "I follow you," to keep him going. It was tremendously difficult stuff, but I do not think he ever suspected how much I did not understand him. There were moments when I doubted whether I was well employed, but at any rate I was resting from that confounded play. Now and then things gleamed on me clearly for a space, only to vanish just when I thought I had hold of them. Sometimes my attention failed altogether, and I would give it up and sit and stare at him, wondering whether, after all, it would not be better to use him as a

central figure in a good farce and let all this other stuff slide. And then, perhaps, I would catch on again for a bit.

At the earliest opportunity I went to see his house. It was large and carelessly furnished; there were no servants other than his three assistants, and his dietary and private life were characterised by a philosophical simplicity. He was a water-drinker, a vegetarian, and all those logical disciplinary things. But the sight of his equipment settled many doubts. It looked like business from cellar to attic--an amazing little place to find in an out-of-the-way village. The ground-floor rooms contained benches and apparatus, the bakehouse and scullery boiler had developed into respectable furnaces, dynamos occupied the cellar, and there was a gasometer in the garden. He showed it to me with all the confiding zest of a man who has been living too much alone. His seclusion was overflowing now in an excess of confidence, and I had the good luck to be the recipient.

The three assistants were creditable specimens of the class of "handy-men" from which they came. Conscientious if unintelligent, strong, civil, and willing. One, Spargus, who did the cooking and all the metal work, had been a sailor; a second, Gibbs, was a joiner; and the third was an ex-jobbing gardener, and now general assistant. They were the merest labourers. All the intelligent work was done by Cavor. Theirs was the darkest ignorance compared even with my muddled impression.

And now, as to the nature of these inquiries. Here, unhappily, comes a

grave difficulty. I am no scientific expert, and if I were to attempt to set forth in the highly scientific language of Mr. Cavor the aim to which his experiments tended, I am afraid I should confuse not only the reader but myself, and almost certainly I should make some blunder that would bring upon me the mockery of every up-to-date student of mathematical physics in the country. The best thing I can do therefore is, I think to give my impressions in my own inexact language, without any attempt to wear a garment of knowledge to which I have no claim.

The object of Mr. Cavor's search was a substance that should be "opaque"--he used some other word I have forgotten, but "opaque" conveys the idea--to "all forms of radiant energy." "Radiant energy," he made me understand, was anything like light or heat, or those Rontgen Rays there was so much talk about a year or so ago, or the electric waves of Marconi, or gravitation. All these things, he said, radiate out from centres, and act on bodies at a distance, whence comes the term "radiant energy." Now almost all substances are opaque to some form or other of radiant energy. Glass, for example, is transparent to light, but much less so to heat, so that it is useful as a fire-screen; and alum is transparent to light, but blocks heat completely. A solution of iodine in carbon bisulphide, on the other hand, completely blocks light, but is quite transparent to heat. It will hide a fire from you, but permit all its warmth to reach you. Metals are not only opaque to light and heat, but also to electrical energy, which passes through both iodine solution and glass almost as though they were not interposed. And so on.

Now all known substances are "transparent" to gravitation. You can use screens of various sorts to cut off the light or heat, or electrical influence of the sun, or the warmth of the earth from anything; you can screen things by sheets of metal from Marconi's rays, but nothing will cut off the gravitational attraction of the sun or the gravitational attraction of the earth. Yet why there should be nothing is hard to say. Cavor did not see why such a substance should not exist, and certainly I could not tell him. I had never thought of such a possibility before. He showed me by calculations on paper, which Lord Kelvin, no doubt, or Professor Lodge, or Professor Karl Pearson, or any of those great scientific people might have understood, but which simply reduced me to a hopeless muddle, that not only was such a substance possible, but that it must satisfy certain conditions. It was an amazing piece of reasoning. Much as it amazed and exercised me at the time, it would be impossible to reproduce it here. "Yes," I said to it all, "yes; go on!" Suffice it for this story that he believed he might be able to manufacture this possible substance opaque to gravitation out of a complicated alloy of metals and something new--a new element, I fancy--called, I believe, helium, which was sent to him from London in sealed stone jars. Doubt has been thrown upon this detail, but I am almost certain it was helium he had sent him in sealed stone jars. It was certainly something very gaseous and thin. If only I had taken notes...

But then, how was I to foresee the necessity of taking notes?

Any one with the merest germ of an imagination will understand the

extraordinary possibilities of such a substance, and will sympathise a little with the emotion I felt as this understanding emerged from the haze of abstruse phrases in which Cavor expressed himself. Comic relief in a play indeed! It was some time before I would believe that I had interpreted him aright, and I was very careful not to ask questions that would have enabled him to gauge the profundity of misunderstanding into which he dropped his daily exposition. But no one reading the story of it here will sympathise fully, because from my barren narrative it will be impossible to gather the strength of my conviction that this astonishing substance was positively going to be made.

I do not recall that I gave my play an hour's consecutive work at any time after my visit to his house. My imagination had other things to do. There seemed no limit to the possibilities of the stuff; whichever way I tried I came on miracles and revolutions. For example, if one wanted to lift a weight, however enormous, one had only to get a sheet of this substance beneath it, and one might lift it with a straw. My first natural impulse was to apply this principle to guns and ironclads, and all the material and methods of war, and from that to shipping, locomotion, building, every conceivable form of human industry. The chance that had brought me into the very birth-chamber of this new time--it was an epoch, no less--was one of those chances that come once in a thousand years. The thing unrolled, it expanded and expanded. Among other things I saw in it my redemption as a business man. I saw a parent company, and daughter companies, applications to right of us, applications to left, rings and trusts, privileges, and concessions spreading and spreading, until one

vast, stupendous Cavorite company ran and ruled the world.

And I was in it!

I took my line straight away. I knew I was staking everything, but I jumped there and then.

"We're on absolutely the biggest thing that has ever been invented," I said, and put the accent on "we." "If you want to keep me out of this, you'll have to do it with a gun. I'm coming down to be your fourth labourer to-morrow."

He seemed surprised at my enthusiasm, but not a bit suspicious or hostile. Rather, he was self-depreciatory. He looked at me doubtfully. "But do you really think--?" he said. "And your play! How about that play?"

"It's vanished!" I cried. "My dear sir, don't you see what you've got?

Don't you see what you're going to do?"

That was merely a rhetorical turn, but positively, he didn't. At first I could not believe it. He had not had the beginning of the inkling of an idea. This astonishing little man had been working on purely theoretical grounds the whole time! When he said it was "the most important" research the world had ever seen, he simply meant it squared up so many theories, settled so much that was in doubt; he had troubled no more about the application of the stuff he was going to turn out than if he had been a

machine that makes guns. This was a possible substance, and he was going to make it! V'la tout, as the Frenchman says.

Beyond that, he was childish! If he made it, it would go down to posterity as Cavorite or Cavorine, and he would be made an F.R.S., and his portrait given away as a scientific worthy with Nature, and things like that. And that was all he saw! He would have dropped this bombshell into the world as though he had discovered a new species of gnat, if it had not happened that I had come along. And there it would have lain and fizzled, like one or two other little things these scientific people have lit and dropped about us.

When I realised this, it was I did the talking, and Cavor who said, "Go on!" I jumped up. I paced the room, gesticulating like a boy of twenty. I tried to make him understand his duties and responsibilities in the matter-our duties and responsibilities in the matter. I assured him we might make wealth enough to work any sort of social revolution we fancied, we might own and order the whole world. I told him of companies and patents, and the case for secret processes. All these things seemed to take him much as his mathematics had taken me. A look of perplexity came into his ruddy little face. He stammered something about indifference to wealth, but I brushed all that aside. He had got to be rich, and it was no good his stammering. I gave him to understand the sort of man I was, and that I had had very considerable business experience. I did not tell him I was an undischarged bankrupt at the time, because that was temporary, but I think I reconciled my evident poverty with my financial claims. And

quite insensibly, in the way such projects grow, the understanding of a Cavorite monopoly grew up between us. He was to make the stuff, and I was to make the boom.

I stuck like a leech to the "we"--"you" and "I" didn't exist for me.

His idea was that the profits I spoke of might go to endow research, but that, of course, was a matter we had to settle later. "That's all right," I shouted, "that's all right." The great point, as I insisted, was to get the thing done.

"Here is a substance," I cried, "no home, no factory, no fortress, no ship can dare to be without--more universally applicable even than a patent medicine. There isn't a solitary aspect of it, not one of its ten thousand possible uses that will not make us rich, Cavor, beyond the dreams of avarice!"

"No!" he said. "I begin to see. It's extraordinary how one gets new points of view by talking over things!"

"And as it happens you have just talked to the right man!"

"I suppose no one," he said, "is absolutely averse to enormous wealth.

Of course there is one thing--"

He paused. I stood still.

"It is just possible, you know, that we may not be able to make it after all! It may be one of those things that are a theoretical possibility, but a practical absurdity. Or when we make it, there may be some little hitch!"

"We'll tackle the hitch when it comes." said I.