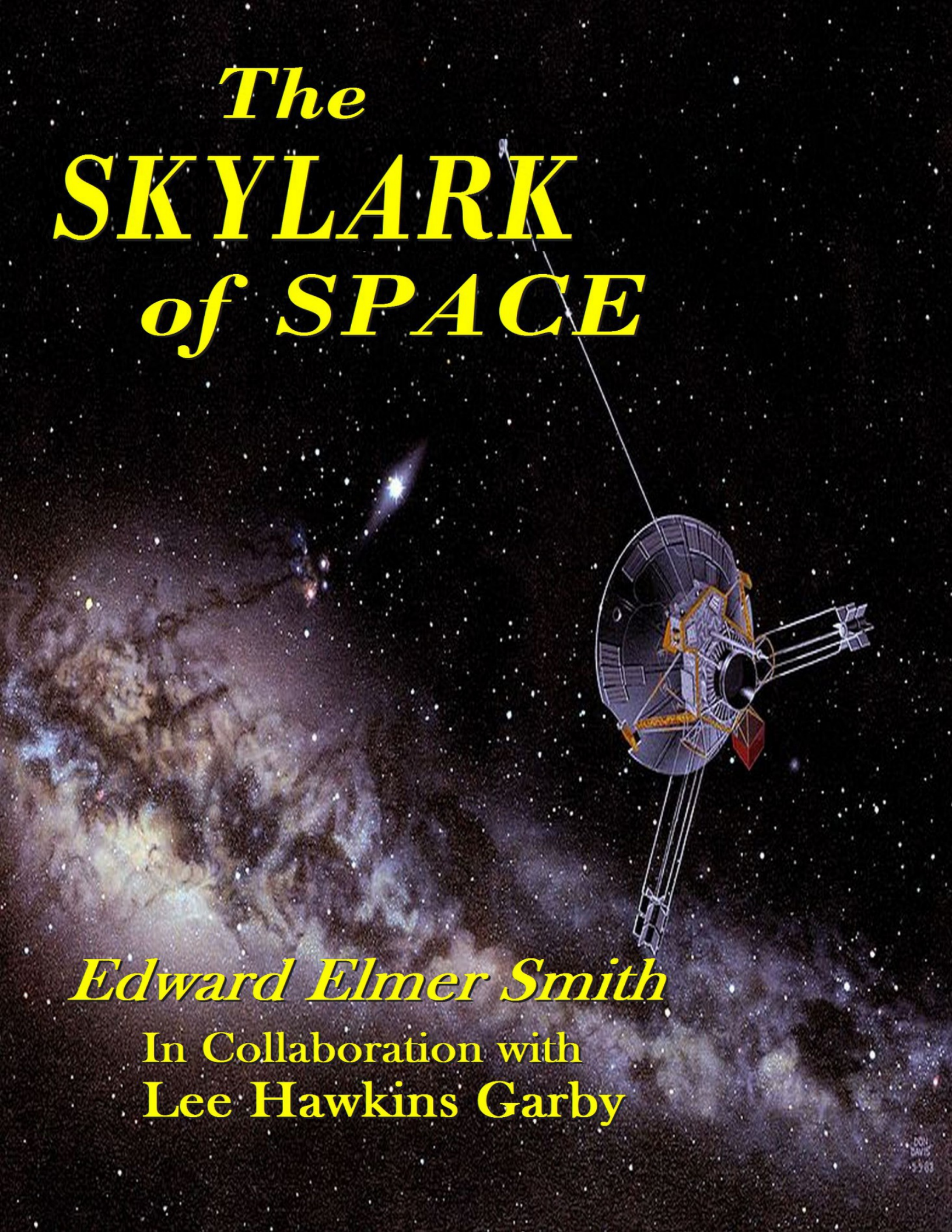
The SKYLARK of SPACE



Edward Elmer Smith

In Collaboration with

Lee Hawkins Garby

The SKYLARK *of* SPACE

By Edward Elmer Smith

In Collaboration with

LEE HAWKINS GARBY

Perhaps it is a bit unethical and unusual for editors to voice their opinion of their own wares, but when such a story as "The Skylark of Space" comes along, we just feel as if we must shout from the housetops that this is the greatest interplanetarian and space flying story that has appeared this year. Indeed, it probably will rank as one of the great space flying stories for many years to come. The story is chock full, not only of excellent science, but woven through it there is also that very rare element, love and romance. This element in an interplanetarian story is often apt to be foolish, but it does not seem so in this particular story.

We know so little about intra-atomic forces, that this story, improbable as it will appear in spots, will read commonplace years hence, when we have atomic engines, and when we have solved the riddle of the atom.

You will follow the hair-raising explorations and strange ventures into far-away worlds with bated breath, and you will be fascinated, as we were, with the strangeness of it all.

Table of Contents

CHAPTER I

The Occurrence of the Impossible

Petrified with astonishment, Richard Seaton stared after the copper steam-bath upon which he had been electrolyzing his solution of "X," the unknown metal. For as soon as he had removed the beaker the heavy bath had jumped endwise from under his hand as though it were alive. It had flown with terrific speed over the table, smashing apparatus and bottles of chemicals on its way, and was even now disappearing through the open window. He seized his prism binoculars and focused them upon the flying vessel, a speck in the distance. Through the glass he saw that it did not fall to the ground, but continued on in a straight line, only its rapidly diminishing size showing the enormous velocity with which it was moving. It grew smaller and smaller, and in a few moments disappeared utterly.

The chemist turned as though in a trance. How was this? The copper bath he had used for months was gone—gone like a shot, with nothing to make it go. Nothing, that is, except an electric cell and a few drops of the unknown solution. He looked at the empty space where it had stood, at the broken glass covering his laboratory table, and again stared out of the window.

He was aroused from his stunned inaction by the entrance of his colored laboratory helper, and silently motioned him to clean up the wreckage.

"What's happened, Doctah?" asked the dusky assistant.

"Search me, Dan. I wish I knew, myself," responded Seaton, absently, lost in wonder at the incredible phenomenon of which he had just been a witness.

Ferdinand Scott, a chemist employed in the next room, entered breezily.

"Hello, Dicky, thought I heard a racket in here," the newcomer remarked. Then he saw the helper busily mopping up the reeking mass of chemicals.

"Great balls of fire!" he exclaimed. "What've you been celebrating? Had an explosion? How, what, and why?"

"I can tell you the 'what,' and part of the 'how'," Seaton replied thoughtfully, "but as to the 'why,' I am completely in the dark. Here's all I know about it," and in a few words he related the foregoing incident. Scott's face showed in turn interest, amazement, and pitying alarm. He took Seaton by the arm.

"Dick, old top, I never knew you to drink or dope, but this stuff sure came out of either a bottle or a needle. Did you see a pink serpent carrying it away? Take my advice, old son, if you want to stay in Uncle Sam's service, and lay off the stuff, whatever it is. It's bad enough to come down here so far gone that you wreck most of your apparatus and lose the rest of it, but to pull a yarn like that is going too far. The Chief will have to ask for your resignation, sure. Why don't you take a couple of days of your leave and straighten up?"

Seaton paid no attention to him, and Scott returned to his own laboratory, shaking his head sadly.

Seaton, with his mind in a whirl, walked slowly to his desk, picked up his blackened and battered briar pipe, and sat down to study out what he had done, or what could possibly have happened, to result in such an unbelievable infraction of all the laws of mechanics and gravitation. He knew that he was sober and sane, that the thing had actually happened. But why? And how? All his scientific training told him that it was impossible. It was unthinkable that an inert mass of metal should fly off into space without any applied force. Since it had actually happened, there must have been applied an enormous and hitherto unknown force. What was that force? The reason for this unbelievable manifestation of energy was certainly somewhere in the solution, the electrolytic cell, or the steam-bath. Concentrating all the power of his highly-trained analytical mind upon the problem—deaf and blind to everything else, as was his wont when deeply interested—he sat motionless, with his forgotten pipe clenched between his teeth. Hour after hour he sat there, while most of his fellow-chemists finished the day's work and left the building and the room slowly darkened with the coming of night.

Finally he jumped up. Crashing his hand down upon the desk, he exclaimed:

"I have liberated the intra-atomic energy of copper! Copper, 'X,' and electric current!

"I'm sure a fool for luck!" he continued as a new thought struck him. "Suppose it had been liberated all at once? Probably blown the whole world off its hinges. But it wasn't: it was given off slowly and in[392] a straight line. Wonder why? Talk about power! Infinite! Believe me, I'll show this whole Bureau of Chemistry something to make their eyes stick out, tomorrow. If they won't let me go ahead and develop it, I'll resign, hunt up some more 'X', and do it myself. That bath is on its way to the moon right now, and there's no reason why I can't follow it. Martin's such a fanatic on exploration, he'll fall all over himself to build us any kind of a craft we'll need ... we'll explore the whole solar system! Great Cat, what a chance! A fool for luck is right!"

He came to himself with a start. He switched on the lights and saw that it was ten o'clock. Simultaneously he recalled that he was to have had dinner with his fiancée at her home, their first dinner since their engagement. Cursing himself for an idiot he hastily left the building, and soon his motorcycle was tearing up Connecticut Avenue toward his sweetheart's home.

CHAPTER II

Steel Becomes Interested

Dr. Marc DuQuesne was in his laboratory, engaged in a research upon certain of the rare metals, particularly in regard to their electrochemical properties. He was a striking figure. Well over six feet tall, unusually broad-shouldered even for his height, he was plainly a man of enormous physical strength. His thick, slightly wavy hair was black. His eyes, only a trifle lighter in shade, were surmounted by heavy black eyebrows which grew together above his aquiline nose.

Scott strolled into the room, finding DuQuesne leaning over a delicate electrical instrument, his forbidding but handsome face strangely illuminated by the ghastly glare of his mercury-vapor arcs.

"Hello, Blackie," Scott began. "I thought it was Seaton in here at first. A fellow has to see your faces to tell you two apart. Speaking of Seaton, d'you think that he's quite right?"

"I should say, off-hand, that he was a little out of control last night and this morning," replied DuQuesne, manipulating connections with his long, muscular fingers. "I don't think that he's insane, and I don't believe that he dopes—probably overwork and nervous strain. He'll be all right in a day or two."

"I think he's a plain nut, myself. That sure was a wild yarn he sprung on us, wasn't it? His imagination was hitting on all twelve, that's sure. He seems to believe it himself, though, in spite of making a flat failure of his demonstration to us this morning. He saved that waste solution he was working on—what was left of that carboy of platinum residues after he had recovered all the values, you know—and got them to put it up at auction this noon. He resigned from the Bureau, and he and M. Reynolds Crane, that millionaire friend of his, bid it in for ten cents."

"M. Reynolds Crane?" DuQuesne concealed a start of surprise. "Where does he come in on this?"

"Oh, they're always together in everything. They've been thicker than Damon and Pythias for a long time. They play tennis together—they're doubles champions of the District, you know—and all kinds of things. Wherever you find one of them you'll usually find the other. Anyway, after they got the solution Crane took Seaton in his car, and somebody said they went out to Crane's house. Probably trying to humor him. Well, ta-ta; I've got a week's work to do yet today."

As Scott left DuQuesne dropped his work and went to his desk, with a new expression, half of chagrin, half of admiration, on his face. Picking up his telephone, he called a number.

"Brookings?" he asked, cautiously. "This is DuQuesne. I must see you immediately. There's something big started that may as well belong to us.... No, can't say anything over the telephone.... Yes, I'll be right out."

He left the laboratory and soon was in the private office of the head of the Washington or "diplomatic" branch, as it was known in certain circles, of the great World Steel Corporation. Offices and laboratories were maintained in the city, ostensibly for research work, but in reality to be near the center of political activity.

"How do you do, Doctor DuQuesne?" Brookings said as he seated his visitor. "You seem excited."

"Not excited, but in a hurry," DuQuesne replied. "The biggest thing in history has just broken, and we've got to work fast if we get in on it. Have you any doubts that I always know what I am talking about?"

"No," answered the other in surprise. "Not the slightest. You are widely known as an able man. In fact, you have helped this company several times in various deal—er, in various ways."

"Say it. Brookings. 'Deals' is the right word. This one is going to be the

biggest ever. The beauty of it is that it should be easy—one simple burglary and an equally simple killing—and won't mean wholesale murder, as did that...."

"Oh, no, Doctor, not murder. Unavoidable accidents."

"Why not call things by their right names and save breath, as long as we're alone? I'm not squeamish. But to get down to business. You know Seaton, of our division, of course. He has been recovering the various rare metals from all the residues that have accumulated in the Bureau for years. After separating out all the known metals he had something left, and thought it was a new element, a metal. In one of his attempts to get it into the metallic state, a little of its solution fizzed out and over a copper steam bath or tank, which instantly flew out of the window like a bullet. It went clear out of sight, out of range of his binoculars, just that quick." He snapped his fingers under Brookings' nose. "Now that discovery means such power as the world never dreamed of. In fact, if Seaton hadn't had all the luck in the world right with him yesterday, he would have blown half of North America off the map. Chemists have known for years that all matter contains enormous stores of intra-atomic energy, but have always considered it 'bound'—that is, incapable of liberation. Seaton has liberated it."

"And that means?"

"That with the process worked out, the Corporation[393] could furnish power to the entire world, at very little expense."

A look of scornful unbelief passed over Brookings' face.

"Sneer if you like," DuQuesne continued evenly. "Your ignorance doesn't change the fact in any particular. Do you know what intra-atomic energy is?"

"I'm afraid that I don't, exactly."

"Well, it's the force that exists between the ultimate component parts of matter, if you can understand that. A child ought to. Call in your chief

chemist and ask him what would happen if somebody would liberate the intra-atomic energy of one hundred pounds of copper."

"Pardon me, Doctor. I didn't presume to doubt you. I will call him in."

He telephoned a request and soon a man in white appeared. In response to the question he thought for a moment, then smiled slowly.

"If it were done instantaneously it would probably blow the entire world into a vapor, and might force it clear out of its orbit. If it could be controlled it would furnish millions of horsepower for a long time. But it can't be done. The energy is bound. Its liberation is an impossibility, in the same class with perpetual motion. Is that all, Mr. Brookings?"

As the chemist left, Brookings turned again to his visitor, with an apologetic air.

"I don't know anything about these things myself, but Chambers, also an able man, says that it is impossible."

"As far as he knows, he is right. I should have said the same thing this morning. But I do know about these things—they're my business—and I tell you that Seaton has done it."

"This is getting interesting. Did you see it done?"

"No. It was rumored around the Bureau last night that Seaton was going insane, that he had wrecked a lot of his apparatus and couldn't explain what had happened. This morning he called a lot of us into his laboratory, told us what I have just told you, and poured some of his solution on a copper wire. Nothing happened, and he acted as though he didn't know what to make of it. The foolish way he acted and the apparent impossibility of the whole thing, made everybody think him crazy. I thought so until I learned this afternoon that Mr. Reynolds Crane is backing him. Then I knew that he had told us just enough of the truth to let him get away clean with the solution."

"But suppose the man *is* crazy?" asked Brookings. "He probably is a

monomaniac, really insane on that one thing, from studying it so much."

"Seaton? Yes, he's crazy—like a fox. You never heard of any insanity in Crane's family, though, did you? You know that he never invests a cent in anything more risky than Government bonds. You can bet your last dollar that Seaton showed him the real goods." Then, as a look of conviction appeared upon the other's face, he continued:

"Don't you understand that the solution was Government property, and he had to do something to make everybody think it worthless, so that he could get title to it? That faked demonstration that failed was certainly a bold stroke—so bold that it was foolhardy. But it worked. It fooled even me, and I am not usually asleep. The only reason he got away with it, is, that he has always been such an open-faced talker, always telling everything he knew.

"He certainly played the fox," he continued, with undisguised admiration. "Heretofore he has never kept any of his discoveries secret or tried to make any money out of them, though some of them were worth millions. He published them as soon as he found them, and somebody else got the money. Having that reputation, he worked it to make us think him a nut. He certainly is clever. I take off my hat to him—he's a wonder!"

"And what is your idea? Where do we come in?"

"You come in by getting that solution away from Seaton and Crane, and furnishing the money to develop the stuff and to build, under my direction, such a power-plant as the world never saw before."

"Why get that particular solution? Couldn't we buy up some platinum wastes and refine them?"

"Not a chance," replied the scientist. "We have refined platinum residues for years, and never found anything like that before. It is my idea that the stuff, whatever it is, was present in some particular lot of platinum in considerable quantities as an impurity. Seaton hasn't all of it there is in the world, of course, but the chance of finding any more of it without knowing exactly what it is or how it reacts is extremely slight. Besides, we must have

exclusive control. How could we make any money out of it if Crane operates a rival company and is satisfied with ten percent profit? No, we must get all of that solution. Seaton and Crane, or Seaton, at least, must be killed, for if he is left alive he can find more of the stuff and break our monopoly. I want to borrow your strong-arm squad tonight, to go and attend to it."

After a few moments' thought, his face set and expressionless, Brookings said:

"No, Doctor. I do not think that the Corporation would care to go into a matter of this kind. It is too flagrant a violation of law, and we can afford to buy it from Seaton after he proves its worth."

"Bah!" snorted DuQuesne. "Don't try that on me, Brookings. You think you can steal it yourself, and develop it without letting me in on it? You can't do it. Do you think I am fool enough to tell you all about it, with facts, figures, and names, if you could get away with it without me? Hardly! You can steal the solution, but that's all you can do. Your chemist or the expert you hire will begin experimenting without Seaton's lucky start, which I have already mentioned, but about which I haven't gone into any detail. He will have no information whatever, and the first attempt to do anything with the stuff will blow him and all the country around him for miles into an impalpable powder. You will lose your chemist, your solution, and all hope of getting the process. There are only two men in the United States, or in the world, for that matter, with brains enough and information enough to work it out.[394] One is Richard B. Seaton, the other is Marc C. DuQuesne. Seaton certainly won't handle it for you. Money can't buy him and Crane, and you know it. You must come to me. If you don't believe that now, you will very shortly, after you try it alone."

Brookings, caught in his duplicity and half-convinced of the truth of DuQuesne's statements, still temporized.

"You're modest, aren't you, Doctor?" he asked, smiling.

"Modest? No," said the other calmly. "Modesty never got anybody anything

but praise, and I prefer something more substantial. However, I never exaggerate or make over-statements, as you should know. What I have said is merely a statement of fact. Also, let me remind you that I am in a hurry. The difficulty of getting hold of that solution is growing greater every minute, and my price is getting higher every second."

"What is your price at the present second?"

"Ten thousand dollars per month during the experimental work; five million dollars in cash upon the successful operation of the first power unit, which shall be of not less than ten thousand horsepower; and ten percent of the profits."

"Oh, come, Doctor, let's be reasonable. You can't mean any such figures as those."

"I never say anything I don't mean. I have done a lot of dirty work with you people before, and never got much of anything out of it. You were always too strong for me; that is, I couldn't force you without exposing my own crookedness, but now I've got you right where I want you. That's my price; take it or leave it. If you don't take it now, the first two of those figures will be doubled when you do come to me. I won't go to anybody else, though others would be glad to get it on my terms, because I have a reputation to maintain and you are the only ones who know that I am crooked. I know that my reputation is safe as long as I work with you, because I know enough about you to send all you big fellows, clear down to Perkins, away for life. I also know that that knowledge will not shorten my days, as I am too valuable a man for you to kill, as you did...."

"Please, Doctor, don't use such language...."

"Why not?" interrupted DuQuesne, in his cold, level voice. "It's all true. What do a few lives amount to, as long as they're not yours and mine? As I said, I can trust you, more or less. You can trust me, because you know that I can't send you up without going with you. Therefore, I am going to let you go ahead without me as far as you can—it won't be far. Do you want me to come in now or later?"

"I'm afraid we can't do business on any such terms as that," said Brookings, shaking his head. "We can undoubtedly buy the power rights from Seaton for what you ask."

"You don't fool me for a second, Brookings. Go ahead and steal the solution, but take my advice and give your chemist only a little of it. A very little of that stuff will go a long way, and you will want to have some left when you have to call me in. Make him experiment with extremely small quantities. I would suggest that he work in the woods at least a hundred miles from his nearest neighbor, though it matters nothing to me how many people you kill. That's the only pointer I will give you—I'm giving it merely to keep you from blowing up the whole country," he concluded with a grim smile. "Good-bye."

As the door closed behind the cynical scientist, Brookings took a small gold instrument, very like a watch, from his pocket. He touched a button and held the machine close to his lips.

"Perkins," he said softly, "M. Reynolds Crane has in his house a bottle of solution."

"Yes, sir. Can you describe it?"

"Not exactly. It is greenish yellow in color, and I gather that it is in a small bottle, as there isn't much of the stuff in the world. I don't know what it smells or tastes like, and I wouldn't advise experimenting with it, as it seems to be a violent explosive and is probably poisonous. Any bottle of solution of that color kept in a particularly safe place would probably be the one. Let me caution you that this is the biggest thing you have ever been in, and *it must not fail*. Any effort to purchase it would be useless, however large a figure were named. But if the bottle were only partly emptied and filled up with water, I don't believe anyone would notice the difference, at least for some time, do you?"

"Probably not, sir. Good-bye."

Next morning, shortly after the office opened, Perkins, whose principal characteristic was that of absolute noiselessness, glided smoothly into Brookings' office. Taking a small bottle about half full of a greenish-yellow liquid from his pocket, he furtively placed it under some papers upon his superior's desk.

"A man found this last night, sir, and thought it might belong to you. He said this was a little less than half of it, but that you could have the rest of it any time you want it."

"Thank you, Perkins, he was right. It is ours. Here's a letter which just came," handing him an envelope, which rustled as Perkins folded it into a small compass and thrust it into his vest pocket. "Good morning."

As Perkins slid out, Brookings spoke into his telephone, and soon Chambers, his chief chemist, appeared.

"Doctor Chambers," Brookings began, showing him the bottle, "I have here a solution which in some way is capable of liberating the intra-atomic energy of matter, about which I asked you yesterday. It works on copper. I would like to have you work out the process for us, if you will."

"What about the man who discovered the process?" asked Chambers, as he touched the bottle gingerly.

"He is not available. Surely what one chemist can do, others can? You will not have to work alone. You can hire the biggest men in the line to help you —expense is no object."

"No, it wouldn't be, if such a process could be worked out. Let me see, whom can we get? Doctor Seaton is probably the best man in the country for such a research, but I don't think that we can get him. I tried to get him to work on the iridium-osmium problem, but he refused.[395]"

"We might make an offer big enough to get him."

"No. Don't mention it to him," with a significant look. "He's to know nothing

about it."

"Well, then, how about DuQuesne, who was in here yesterday? He's probably next to Seaton."

"I took it up with him yesterday. We can't get him, his figures are entirely out of reason. Aren't there any other men in the country who know anything? You are a good man, why don't you tackle it yourself?"

"Because I don't know anything about that particular line of research, and I want to keep on living awhile longer," the chemist replied bluntly. "There are other good men whom I can get, however. Van Schravendyck, of our own laboratory, is nearly as good as either Seaton or DuQuesne. He has done a lot of work on radio-activity and that sort of thing, and I think he would like to work on it."

"All right. Please get it started without delay. Give him about a quarter of the solution and have the rest put in the vault. Be sure that his laboratory is set up far enough away from everything else to avoid trouble in case of an explosion, and caution him not to work on too much copper at once. I gather that an ounce or so will be plenty."

The chemist went back to his laboratory and sought his first assistant.

"Van," he began, "Mr. Brookings has been listening to some lunatic who claims to have solved the mystery of liberating intra-atomic energy."

"That's old stuff," the assistant said, laughing. "That and perpetual motion are always with us. What did you tell him?"

"I didn't get a chance to tell him anything—he told me. Yesterday, you know, he asked me what would happen if it could be liberated, and I answered truthfully that lots of things would happen, and volunteered the information that it was impossible. Just now he called me in, gave me this bottle of solution, saying that it contained the answer to the puzzle, and wanted me to work it out. I told him that it was out of my line and that I was afraid of it—

which I would be if I thought there was anything in it—but that it was more or less in your line, and he said to put you on it right away. He also said that expense was no object; to set up an independent laboratory a hundred miles off in the woods, to be safe in case of an explosion; and to caution you not to use too much copper at once—that an *ounce or so* would be plenty!"

"An ounce! Ten thousand tons of nitroglycerin! I'll say an ounce would be plenty, if the stuff is any good at all, which of course it isn't. Queer, isn't it, how the old man would fall for anything like that? How did he explain the failure of the discoverer to develop it himself?"

"He said the discoverer is not available," answered Chambers with a laugh. "I'll bet he isn't available—he's back in St. Elizabeth's again by this time, where he came from. I suggested that we get either Seaton or DuQuesne of Rare Metals to help us on it, and he said that they had both refused to touch it, or words to that effect. If those two turned down a chance to work on a thing as big as this would be, there probably is nothing in this particular solution that is worth a rap. But what Brookings says goes, around here, so it's you for the woods. And don't take any chances, either—it is conceivable that something might happen."

"Sure it might, but it won't. We'll set up that lab near a good trout stream, and I'll have a large and juicy vacation. I'll work on the stuff a little, too—enough to make a good report, at least. I'll analyze it, find out what is in it, deposit it on some copper, shoot an electrolytic current through it, and make a lot of wise motions generally, and have a darn good time besides."