

# The CHEMICAL MAGNET

By Victor Thaddeus



Turning, he slithered back down the steps into the interior of the vessel, did something to the machinery, then appeared on the deck again holding a large platinum dish con-

taining a curious salt that glowed with a pale sea-green phosphorescence. I had one glimpse of this strange substance, then Behrmann threw the dish into the ocean.

NOW that Schirmanhever is dead, and scientists the world over are seeking to rediscover the secret of the extraordinary chemical magnet which brought him wealth and fame, it is only fitting that I, who was his best friend, should tell to the public what little I know about his life, his marvelous invention and his terrible end.

An unhappy love affair made of the generous enthusiast a cold-blooded scientist, who subordinated every emotion to the workings of his intellect.

Schirmanhever talked little, and if he had any dreams beyond those covering the conquest of that hated world of practicality which in its greedy reaching out for material prosperity had cast a blight over his life, no one shall ever know of them.

Of all men of genius that I have known, Schirmanhever was the least secretive about his own ideas. He seemed to harbor no suspicions that his ideas might be appropriated by others for their own profit. Or perhaps the tremendous difficulties lying in the path of accomplishment made him simply scorn the ability of others to succeed, where he might fail. Then again, it may have been that he talked far less freely to others than he did to me. For that Schirmanhever did like me in his strange, impersonal way, I can have no doubt—I call myself his best friend because I know he had no other.

I first met Schirmanhever when he was living in a tumbledown cabin on a beach north of New York City. He was introduced to me in town one day by a mutual acquaintance, and something about his features—I think it must have been the brilliance of his eyes—enlisted my interest immediately. He was about thirty-five at the time, tall and thin, with dark thick hair that fell low over his forehead and straggled down his neck. He wore a shabby lightweight overcoat, and looked generally unkempt. Still, he had a striking

personality. One felt his frail, undernourished body was overengined with mind. He seemed burning up with ideas, though he said little. I grew to like Schirmanhever, and after my first visit I went again as often as I could manage it without seeming to impose on his hospitality. And in the light of subsequent events those visits of mine to his cabin on that astonishing beach made especially vivid memories.

It was an astonishing beach. It represented the last small stretch of coast near the great metropolis to hold out against invasion by the summer hordes. The cabin was situated among a low ridge of sand-dunes separating the ocean from inland waters. Between the dunes and the bay ran a long narrow spit of marsh. It was because the ground here was so marshy, and would have to be drained and filled in before any building could be done, that this stretch of beach had remained undeveloped; on either side of it, two miles distant, were large shore resorts. The beach, piled high with great timbers, packing cases, cans, bottles, and other riff-raff flung up by the tides, presented an astonishingly wild and disordered appearance. At night, in both directions, a million lights traced the distant coast line; to the southwest, in clear weather, might be seen the fainter glimmer of the Coney Island boardwalk, beyond the Rockaways.

Here Schirmanhever lived the year round. Dilapidated in appearance, the cabin was quite snug inside. A chunk stove kept it warm on the coldest days, and wood cost Schirmanhever nothing, as it lay at his very doorstep on the beach in inexhaustible supplies and the dunes held back the strong sea-breezes. He bought his stores each week at a fishing station across the bay.

But on my first visit to this isolated spot I became curious to know how he solved the problem of water. It seemed bad enough to have to tramp such a distance for food

supplies, but how could he manage to have so much water at hand? There was a sufficient supply of water at the cabin, not only for drinking and cooking, but for washing also. I was too interested in talking to Schirmanhever, and noting the equipment of that part of the cabin curtained off from the rest which he called his laboratory, to wonder about his supply of fresh water, but no sooner was I alone on the train returning to the city than I found myself speculating about this. Did Schirmanhever have a well? I dismissed this conjecture as absurd since water from any well sunk in those sand dunes would certainly be quite undrinkable. But where did he get it? Suddenly I remembered that the same problem must have existed for the old hermit who had been the cabin's previous inhabitant. This convinced me that whatever the problem's solution might be, it could not be very mysterious.

Still I was puzzled, especially when on my next visit, I noticed that Schirmanhever, who happened to be over on the mainland laying in supplies when I arrived, was taking back nothing but provisions.

Later, in the cabin, I mentioned the water problem to him.

"Yes, water was old Martin's problem," said Schirmanhever. "He had to bring it over from the mainland, as I did at the beginning. It was the main reason he had for leaving here. Of course," he added, after a moment's pause, "I don't have that problem any more."

The last few words he said willingly, and his expression increased my interest. "How's that?" I asked. "Have you found a nearer place to get it?"

"I don't get it," he answered. "I make it."

"Oh!" I exclaimed, with a laugh at my own foolishness. "Of course! You distill it."

Schirmanhever smiled again. "No," he said, "I don't distill it. But I make it just the same."

He got up to open the chunk stove, and throw in another piece of wood. Outside a strong raw wind was blowing, rattling the sashes of one of the small windows. Even though you could not see it, you sensed that vast expanse of nearby ocean over which the gale was driving. And I asked:

"You make it out of ocean water?"

"Yes, out of ocean water," he replied.

HE said nothing more at the time. Subsequently, when through our general conversations I had got an idea of the nature of his investigations, he was less reserved. I knew then that he had delved very profoundly into the nature of chemical reactions, particularly those of solubility. He had the sort of mind that sees things always from the imaginative viewpoint, that never allows imagination to become smothered beneath technical and mathematical detail. He was able to arrive at an actual picture of molecular processes, and for this reason he was able to make his tremendous discoveries.

One day, drawing back the curtain of his laboratory, he picked up a beaker, filled it with water, and asked me to drop some table salt into it. When I had done so, he said:

"That wasn't much trouble, was it? But what a lot of trouble to get that salt back again—I mean by evaporation. There should be an easier way, shouldn't there?"

I replied I thought there should be. Schirmanhever now placed a clean sheet of white paper on the bench. On the paper he put a handful of sand that he had picked up outside. With the sand he mixed up several pinches of iron filings.

"Now," he asked, "do you know any easy way of getting those filings back again?"

"Well," I said, "if you had a magnet—"

"Exactly!" He produced one, and drew the filings out of the sand, scraping them off the magnet into a little separate pile. Then he looked at me. "By my process I can draw salts

out of water just as easily as that magnet draws iron filings out of the sand. Let's say I've invented a chemical magnet."

He smiled to himself, and added, "That's an inaccurate way of putting it, of course, but it gives the imagination something to feed on, which is the main thing. What I *have* devised is a way of getting salts out of water without having to use any energy. No heat under boilers, no electric current. As simple as that," he snapped his fingers. "And why shouldn't it be easy? There's very little energy change when most salts are dissolved in water. In fact, what energy change there is is usually to the good—the water is cooled off a little by the addition of the salt, so that there should be energy given out, not taken in, when you get the salt back—and there is."

He glanced at one corner of his laboratory where there stood a queer closet-like arrangement with pipes leading in and out—evidently a casing around some concealed apparatus. "Want to see it work?" he asked.

I nodded. I had noticed that corner of the laboratory before, and half-guessed its significance. But this was the first time Schirmanhever had offered any information about it. Now he picked up a pailful of sea-water, and poured it into a large funnel that protruded upwards from the wooden casing. When the water had all vanished into the interior he came around to the front of the casing and turned a valve. A moment later a bucket he had placed on the floor began filling up. Schirmanhever, lifting the bucket so that the water would flow noiselessly down the side, motioned to me to listen. I heard in the interior of the apparatus a soft, continuous sound similar to that which might be made by tiny grains of something slipping down a chute. When the flow of water had stopped, the bucket being nearly full, Schirmanhever lifted a dipperful of it up to my lips—it was as fresh pure water as I have ever tasted. At the

same moment he held up for my inspection a miniature bin that he had drawn out of the interior of his apparatus; its floor was covered with several inches of a whitish salt.

"Now," he said, pouring the contents of the little bin into the bucket of fresh water, "you see before you the pailful of sea-water again."

The whole process had taken so short a time—scarcely more than a couple of minutes—and its operation had been so noiseless, no sound coming from the interior of the machine except that little whispering noise made by the settling salt, that I could only stand amazed.

"You mean to say," I exclaimed, "that that water I drank"—and I looked at what remained in the dipper—"was some of the sea-water—and that that salt you showed me—"

"It was," answered Schirmanhever. "The very same sea-water. My apparatus in here," he tapped the wooden casing, "had simply divided it into its two components—the pure water and the dissolved salts."

"And it got it all out in that short time?"

Schirmanhever smiled at the incredulity in my face. Then he frowned. "Yes, it got it all out, and that's my trouble. That water you tasted was pure as rain water. But my process won't select yet. It pulls salts and suspended matter out in one lot. The hardest part of my job—that of developing selective attraction for the various chemicals in solution, in the same way you might have different magnets for iron, copper, silver, gold and so on,—is still before me. Indeed, I don't know whether I'll ever be able to solve that problem. And if I don't—" His brilliant, feverish eyes stared straight into mine, and I read in them the end of the sentence—that if he didn't, all the knowledge he had acquired thus far would die with him.

This was the thing that astounded me.

Once I realized Schirmanhever's invention actually would extract salts from solution with such ease, it seemed to me the most marvelous scientific achievement of the century. If he stopped at this point, he had only to commercialize his process to make an immense fortune for himself. But Schirmanhever seemed to think he had accomplished nothing as yet. His whole being was wrapped up in making the process the entirely perfect thing he had dreamed it.

"There!" he would exclaim, gesturing dramatically towards the leagues of ocean, "just look at the immensity of it! A greater storehouse of minerals than you'll find in all the mines of the earth put together. All the metallic and non-metallic elements in it in some shape or form. Vast Mother Ocean, covering the greater portion of our planet, miles deep in places, and into which, sooner or later, everything gets washed! All the metals, even one of the most precious—gold. Yes, gold in undreamed of quantities! Scarcely even a trace by analysis, but tons and tons when you have an inexhaustible reservoir to comb it out of. When the whole ocean is your mine!"

That word gold would make his eyes take on a greater brilliance. I could see he craved power, wanted it more than anything in the world. More than three years had passed now since I first met Schirmanhever, and he was working night and day to overcome that problem of selection and also to speed up his process of extraction. For, miraculously quick as this seemed to me, it was not nearly quick enough to suit Schirmanhever. He explained how, with the millions of tons of sea-water he would have to run through his apparatus in order to get appreciable amounts of the precious chemicals he wanted most, there could not, if it was to be a success, be any appreciable delay in the free flow of the current. At present, though he had greatly perfected the extraction during the past few

years, the separation imposed a small but definite drag on the moving liquid. This he was seeking to eliminate.

**M**ORE than once, during this period, I doubted Schirmanhever's sanity. Haggard and wild-eyed, his unkempt hair falling around his face, his ragged clothes flapping on his thin body, he had at times a positively sinister air. Watching him as he paced the beach, muttering to himself, and casting hungry glances seawards, I wondered if he was really in his right mind. With all that driftwood piled chaotically on the sand around him, he had the appearance of a lone survivor of some tremendous wreck, driven crazy by solitude and privation, desperately watching the horizon for a sign of smoke or sail. Years later, I was to watch him pacing in a similar manner another far-distant beach—a beach more white and dazzling than this one, the very calm of whose tropic beauty was to make more dreadful that awful scene of Schirmanhever's final disintegration. Then Schirmanhever, the man who had made his dreams come true—too true, alas!—did really go mad.

It occurred to me sometimes that this story of a chemical magnet might be only his madness. For, remember, that while I saw him put sea-water into the machine, and take fresh water and salt out, his word was my only proof that the latter were the products of the former. Though Schirmanhever did not hesitate to discuss with me, the general theories underlying his investigations, he never spoke of the details of his process. He frequently left the curtains of his laboratory undrawn, so that he could talk to me as he worked, but at these times the apparatus was always hidden from view by its wooden casing, and he was obviously only engaged in experiments of minor importance; whenever he was working on the apparatus itself, which I could tell by the sound of the casing being

dragged aside, the curtains were always drawn, and tied. I began to wonder if inside that casing there really was any apparatus, or whether it was only a trick arrangement with which Schirmanhever's overstrained mind practiced a grotesque self-deception. At last, curiosity getting the better of all sense of decency, I took advantage of a moment when he had gone down to the ocean for water, to slip into the laboratory and examine the machine.

Schirmanhever had been in the laboratory for over an hour with the curtains drawn. He had evidently had to interrupt an experiment to fetch more water, for he had left hurriedly, in his haste failing to fasten the curtains. I guessed I should find the machine exposed to view—if there was any—and I was right. The casing, hinged at the back, stood open, revealing a short, thick cylinder of metal, like a fat water boiler. Except for this cylinder, and the pipes leading in and out, the space inside the casing was absolutely empty. On the cylinder a warning, "Hands off! Danger!" was painted in large red letters.

Staring at the cylinder, I realized I hadn't learned much. Either the cylinder was empty, or within it was safely concealed all the vital mechanism of Schirmanhever's process. And the cylinder apparently had no opening through which the eye could penetrate its interior. Then I noticed something I had missed at the first glance, a small shutter at the top which evidently protected just such an observation point as I was in search of. Reckless of the red warning on the cylinder, I reached out to draw the shutter aside, at the same time stooping to put my eye to the opening.

My hand was grasped in mid-air—Schirmanhever stood beside me. He had seen me through the window and returned quietly. Instead of being angry, as I expected, he brushed aside my confusion and apologies

with the mere remark:

"You wouldn't have discovered anything, and you might have killed yourself."

He closed the casing until I had left the laboratory, then drew the curtains behind me, and resumed his experiment. He seemed to understand perfectly that no motive worse than curiosity had prompted me to violate his hospitality. This incident, indeed, led him to speak more freely about his process than he had done before. He explained how, like the French 75-mm. field-piece, the secret of whose recoil mechanism is safeguarded against detection by the mechanism blowing up and destroying itself as soon as tampered with by inexperienced hands, his invention would also explode if anyone but himself tried to examine it. He seemed to read my thoughts about the curious simplicity of what I had seen—only that cylinder, with the pipes leading in and out.

"You were surprised because you saw nothing complicated," he said. "You expected the astonishing and the intricate. Why weren't there any wires suggesting electricity? Well, inside that cylinder it isn't, of course, quite so simple as it is on the outside, but you'd be surprised if you knew what simple apparatus the cylinder does contain, nevertheless. Simple to your way of thinking, that is. Simple and empty in just the same way that the interior of an automobile would look simple and empty to a person of olden times who was hunting everywhere for the horse that made the automobile move. Simple and empty as an electric wire carrying current on a million-volt circuit would seem to people who didn't know anything about electricity, who never dreamed what power was flowing silently along that little wire. My process is simple because it depends on an entirely new principle. It's a principle as different from any other in the world as, for instance, in the field of vision, the color red is different from the color blue. And that's about all I can tell you

about it,” he finished with a smile, “except from our previous talks you may be able to guess that it’s a principle depending, not unlike electricity, upon the mysterious laws which control atomic and molecular structure.”

His lips twitched as he smiled. It was one of our last talks together—before he went away. Schirmanhever had grown very thin and haggard. He was experimenting against time. For he had only a few months longer to live in the cabin. At last this stretch of beach so long neglected by development companies was to be improved. A great dredge had arrived on the bay side and was filling in the land. Surveyors were staking out the marsh into streets and lots. A line of telegraph poles sprang up. Schirmanhever watched these operations with a dark look of hate. It was the world of practicality pursuing him even into the solitude of his wild home—driving him out. He had been given notice by the development company that he could not occupy the land later than the beginning of the next summer.

“**H**E has lived here for six years. Has he actually accomplished anything during this period?” I used to ask myself. The men working for the development company plainly regarded him as a crazy freak, and I wondered if they weren’t right. Did he really have anything to show for the labor of all these years? Or was he simply a man obsessed with an idea?

Then one day the impossible happened. When I arrived at the cabin, Schirmanhever told me he had inherited a fortune. A rich uncle—on his father’s side Schirmanhever was of German descent, on his mother’s Irish—had just died, and left his wealth to him. Schirmanhever told me the news without excitement. I confess I would have doubted his word, except that the arrival of a stout lawyer, puffing from the exertion of

the long trudge, and with his shoes full of sand, supplied an incontrovertible proof. I thought then that Schirmanhever’s troubles were over—that the loss of the cabin would be of no importance to him, as he now had the means to equip a more comfortable laboratory in a far more convenient location. But Schirmanhever stayed on in the cabin, apparently determined to wind up his investigations where he had started them. Perhaps the fact that good fortune had come his way only when he could almost do without it, made him the more bitter. His glances in the direction of that big dredge busily filling in the swamp, of those steam shovels tearing at the sand dunes, held the same personal antagonism. But one day when I visited him, he seemed calmer than ever I had seen him before. And as the launch was carrying me away, he called after me in a peculiar tone that seemed to carry with it, a strange presentiment, “Well, good-bye!”

It was the last time I was to see Schirmanhever for many months. When I next visited the island he was gone. The abandoned cabin was being torn down by workmen who speculated jokingly on the use that had been made of the fragments of apparatus and glassware left behind. The surveyors were shooting the line of a road that would pass straight through the site of the cabin. Watching it crumbling beneath the blows of sledge and hammer, I got a sudden sharp sense of loss. I walked along the beach, picking my way among the debris cast up by the sea, wondering if Schirmanhever would write, or if he had gone out of my life forever. So two years went by.

Meanwhile all my suspicions about the non-existence of his chemical magnet, as he had called it, seemed confirmed. I watched the newspapers and scientific journals for some startling report of the great new discovery. I re-visited the island, and its progressive appearance—sidewalks were already down,

and carpenters hammering on summer cottages everywhere—made the past seem a dream. I remembered that last glimpse of Schirmanhever standing on the shore growing smaller as the launch sped for the mainland, and I felt a little hurt that that casual “good-bye” had been the only warning given me of his departure. And more than once, the absurdity of his having accomplished anything momentous in that makeshift little building by the sea occurred to me, though at the same time I could not but recall that the early investigations of Steinmetz and other great scientists had been conducted in equally humble surroundings.

During this period of silence I had in my keeping one little thing to give reality to the vanished Schirmanhever and his splendid aspirations. It was a small scrap of paper, the beginning of a letter I had found in the sea grass on that morning when the cabin was being torn down. On it were the words:

“Dear Anne: At last, after all these years, I have....”

The writing was Schirmanhever’s, and he had evidently been unable to go any further, or else had discarded and thrown away this first attempt at a letter to the woman who had rejected his love.

It was about four years after Schirmanhever’s disappearance that I suddenly found his name on everyone’s lips. Almost overnight, it seemed, he had acquired international renown. The story of his marvelous chemical discoveries leaped to the front page of the newspapers. I read of the huge plants he had built both on the east and west coasts which now by some extraordinary secret process were producing in abundance almost every known chemical. The four years of delay he had apparently utilized to adapt his process to large-scale production. At any rate, the name Schirmanhever was now certainly one for the man in the street to conjure with. It was rumored he had actually found a way of

transmuting sea-water into gold. It was said this Schirmanhever was on his way to becoming the richest man in the world.

The events of the next few years are history, so I shall pass over them briefly. We all remember Schirmanhever’s first great industrial triumph, his breaking up of the potash monopoly, which after the world war had reverted to the Kali-syndicate; how Schirmanhever’s American plants supplied potash to the home markets at half the price of the foreign product imported from the great Straasfurt deposits; his development of those strange and stupendous floating hulks, known as the Magnet Fleet, which manufactured their cargoes of precious chemicals from ocean water on the journey between ports; how Germany’s preeminence in the field of industrial chemistry waned, all that nation’s achievements in building up the synthetic dye industry fading to nothing beside the colossal accomplishments of the young American scientist; the revolutionary shift of industry from land to ocean, beginning a new epoch in the history of civilization, with the radical alterations it necessitated in the whole economic life of the world; the award to Schirmanhever of the Nobel Prize and his rejection of it; the abortive attempt of the nations to combat Schirmanhever’s accumulation of ocean gold by establishing an international paper currency; the sharp drop in world-wide prosperity as soon as Schirmanhever ordered production to cease at all his plants and popular opinion forcing the powers to come to terms; the passing of poverty everywhere as the hitherto untouched resources of the ocean—that ocean which covers three-fourths of the earth’s surface, and has a volume of three hundred and fifteen million cubic miles—began to be exploited on a gigantic scale. And Schirmanhever’s prestige and power increased until he was virtually dictator of world affairs. We were told of the many deaths resulting from

attempts to discover the secret of his chemical magnet—how the Neptune, the largest vessel in the Magnet Fleet, tampered with by engineers seeking to uncover the mystery of its vital operations, blew up in dock at Hoboken, killing a hundred men and wrecking the nearby piers.

ALL this, I say, has become history. Let me come then, without further delay, to that final and fatal period of Schirmanhever's career in which I was again destined to have a share. Throughout the years of his success our meetings had been few, but we kept in touch with each other. When I had at last seen his name in the papers after that long interval of silence, I met Schirmanhever in New York City; he told me very briefly how busy he had been commercializing his process, and sketched some of his future plans. Later we met again in New York several times, also in London, Paris and Berlin. Needless to say, every minute of Schirmanhever's time during these years was priceless; his waiting rooms were thronged with financiers, scientists, and reporters requesting an interview; but I had only to give my name in order to be admitted immediately. There was a look of genuine pleasure on his face as, putting aside for the time being the enormous weight of business resting on his shoulders, he rose to greet me; with the world at his feet he seemed to regret his past obscurity, to long to be able to return to it. Once, glancing at me strangely, his eyes flashing their old excitement, he started to make some suggestion, but after a few words broke off to a mutter, "No, I'm not quite ready yet—I must wait a little longer!" Then one day I received that memorable telegram requesting me to come immediately to San Francisco. And a week later I was on Schirmanhever's yacht with him bound for that lovely little island in the Pacific which fate had decreed only one of us should ever leave alive.

Arrived at the island, an exquisite pearl of tropical beauty, with great feathery palms swaying high in the sky over a white beach terminating in a coral reef, where the surf thundered night and day, the yacht was dismissed, the captain receiving orders to proceed to Honolulu. A date, several months distant, was set for the yacht's return to the island. A comfortable bungalow, well stocked with provisions, had been built on the island, but Schirmanhever and myself were the only inhabitants. Anchored off the island was a floating laboratory, in general design like a miniature vessel of the Magnet Fleet, which Schirmanhever inspected on the first day of our arrival.

That he had come to this remote spot to push his investigations into some mysterious realm of science, which even his genius had not yet explored, was known to me by now. But the exact nature of this research he had not told me. I could only guess from his suppressed excitement during the cruise that he considered all his previous discoveries of negligible importance compared with those he was now about to attempt. Once settled on the island, he was soon spending all his hours in the floating laboratory. At the beginning I was allowed to come aboard with him, but a day came when he put a stop to my visits. It was about this time that Schirmanhever, while we sat together on the veranda of the bungalow, gave me my first cue to the problem he was working on.

After briefly recapitulating his past accomplishments—the invention of the first chemical magnet that indiscriminately drew all salts out of solution, later the perfection of the process to leave in solution the sodium chloride of little value, and only draw out the more precious potassium, iron, copper, aluminum, nickel, lead, barium, manganese, silver and gold salts, the iodine compounds, phosphates, and radioactive minerals, and these not in a mixed mass, but each chemical

pulled separately out of solution by its own individual magnet, in a pure state—he came to his latest idea, that of developing a chemical magnet of *super-strength*, which would be capable of dragging out of sea-water hitherto unknown chemicals—chemicals of which the ocean held only such an infinitesimal trace that no ordinary method of analysis could detect them.

“Chemicals,” said Schirmanhever, “which may be tremendously more powerful and mysterious than the radioactive minerals, and which may be possessed of amazingly new and vital properties which may, who knows, have actually led to the origin of——”

He broke off. At the time I did not grasp the true meaning of what he said. I only had a vague but distinct sense of danger. Perhaps it was the warmth of the tropic night, and Schirmanhever’s glowing eyes close to mine, the black outlines against the starlit sky of those tall palms reminiscent of days when the whole of the earth was a vast fecund jungle.

“Won’t there be a risk in such experiments?” I asked. “If such chemicals do exist, and you collect them in any quantity, mayn’t they have a frightful effect on the human body?”

“Very likely,” answered Schirmanhever, but the excitement in his voice proved how little he cared. He added, “There’s always a risk in the Unknown.”

From now on he grew pale with a dreadful pallor. He lost his appetite. He had trembling fits that made me fear he had caught some tropical fever. I saw him emerge at intervals from the interior of the floating laboratory waving his arms before him as though to push back an insufferable heat. He paced the white beach, muttering to himself, and gesticulating. One day he shouted:

“I’ve found it at last—the Secret of Life! I’ve got the thing that first brought Life into existence! I’ve got it there, out there!” He

pointed to the floating laboratory. “That much of it!” He cupped his hands. “And before I’m through I’ll have this much of it!” He threw out his arms in a wild gesture that seemed to embrace the entire horizon.

A thrill of horror shot through me. Suddenly I realized the truth of why Schirmanhever was wasting away—remembered my casual suggestion of that night, forgotten next morning. Something deadlier than poison was devouring him. I seized his arm, tried to prevent him from going out to the boat again. Schirmanhever fought himself loose, and the expression in his eyes as he leaped away told me he was mad, utterly mad.

**T**HE next week was a nightmare. Schirmanhever, with the cunning of madness, slept on the boat now, fearing I would detain him if he returned to the bungalow. But he came on shore stealthily and in the moonlight I saw him several times pacing the beach, tottering along in a queer way like a drunken man. At last I could stand it no longer. I resolved, even at risk of my own life, to make a trip to the floating laboratory, find out what he was doing there, and bring him forcibly back to shore.

I set out one evening in the dusk. As I put foot on the deck of the boat, Schirmanhever emerged from a hatchway. He was gasping, his eyes were maniacal, but at sight of me he seemed to pull himself together. With a convulsive effort he put his hands to his head, and in that instant I believe he realized he was dying. Turning, he staggered back down the steps into the interior of the vessel, did something to the machinery, then appeared on deck again holding a large platinum dish containing a curious salt that glowed with a pale sea-green phosphorescence. I had one glimpse of this strange substance, then Schirmanhever had flung the dish into the ocean, which

swallowed it with a slight hiss. In one final moment of sanity Schirmanhever grasped my hand, cried hoarsely, "Go! Don't wait a minute! Get back to the shore right away, because this"—his nerveless fingers slipped away from mine, to indicate the boat we were standing on—"won't be here more than a few seconds." Then he collapsed on the deck, dead.

An uncontrollable panic seized me in the face of that prostrate body, that dreadful, ominous silence by which I was surrounded, and springing back into the skiff, I rowed madly for shore. Scarcely was my foot on land than there was a roar behind me, and the floating laboratory split apart into burning fragments, which an instant later was swallowed by the water. After more than a month of frightful solitude, the yacht returned and carried me back to America. Subsequent development are known to all—how, one by one, Schirmanhever's plants ceased to

function, as though in the chemical magnets there were some vital element, corresponding to an electric battery, which needed renewal after a certain number of years, and the secret of restoring this energy had been known only to him. Frantic endeavors are still being made to rediscover Schirmanhever's secrets, in order once again to infuse vitality into that great ocean industry which now lies idle. And—most interesting of all to me are the many speculations indulged in by scientists upon the nature of those mysterious elements which caused Schirmanhever's terrible end, until today it is generally recognized that Schirmanhever actually did manage to extract from the ocean water in an appreciable quantity—it was that greenish phosphorescent substance in the platinum dish, undoubtedly—certain rare but exceedingly complex and powerful chemicals which, millions of years ago, when the earth was all ocean, first brought life into being.