

The Shadow and the Flash

By Jack London

When I look back, I realize what a peculiar friendship it was. First, there was Lloyd Inwood, tall, slender, and finely knit, nervous and dark. And then Paul Tichlorne, tall, slender, and finely knit, nervous and blond. Each was the replica of the other in everything except color. Lloyd's eyes were black; Paul's were blue. Under stress of excitement, the blood coursed olive in the face of Lloyd, crimson in the face of Paul. But outside this matter of coloring they were as like as two peas. Both were high-strung, prone to excessive tension and endurance, and they lived at concert pitch.

But there was a trio involved in this remarkable friendship, and the third was short, and fat, and chunky, and lazy, and, loath to say, it was I. Paul and Lloyd seemed born to rivalry with each other, and I to be peacemaker between them. We grew up together, the three of us, and full often have I received the angry blows each intended for the other. They were always competing, striving to outdo each other, and when entered upon some such struggle there was no limit either to their endeavors or passions.

This intense spirit of rivalry obtained in their studies and their games. If Paul memorized one canto of "Marmion," Lloyd memorized two cantos, Paul came back with three, and Lloyd again with four, till each knew the whole poem by heart. I remember an incident that occurred at the swimming hole—an incident tragically significant of the life-struggle between them. The boys had a game of diving to the bottom of a ten-foot pool and holding on by submerged roots to see who could stay under the longest. Paul and Lloyd allowed themselves to be bantered into making the descent together. When I saw their faces, set and determined, disappear in the water as they sank swiftly down, I felt a foreboding of something dreadful. The moments sped, the ripples died away, the face of the pool grew placid and untroubled, and neither black nor golden head broke surface in quest of air. We above grew anxious. The longest record of the longest-winded boy had been exceeded, and still there was no sign. Air bubbles trickled slowly upward, showing that the breath had been expelled from their lungs, and after that the bubbles ceased to trickle upward. Each second became interminable, and, unable longer to endure the suspense, I plunged into the water.

I found them down at the bottom, clutching tight to the roots, their heads not a foot apart, their eyes wide open, each glaring fixedly at the other. They were suffering frightful torment, writhing and twisting in the pangs of voluntary suffocation; for neither would let go and acknowledge himself beaten. I tried to break Paul's hold on the root, but he resisted me fiercely. Then I lost my breath and came to the surface, badly scared. I quickly explained the situation, and half a dozen of us went down and by main strength tore them loose. By the time we got them out, both were unconscious, and it was only after much barrel-rolling and rubbing and pounding that they finally came to their senses. They would have drowned there, had no one rescued them.

When Paul Tichlorne entered college, he let it be generally understood that he was going in for the social sciences. Lloyd Inwood, entering at the same time, elected to take the same course. But Paul had had it secretly in mind all the time to study the natural sciences, specializing on chemistry, and at the last moment he switched over. Though Lloyd had already arranged his year's work and attended the first lectures, he at once followed Paul's lead and went in for the natural sciences and especially for chemistry. Their rivalry soon became a noted thing

throughout the university. Each was a spur to the other, and they went into chemistry deeper than did ever students before—so deep, in fact, that ere they took their sheepskins they could have stumped any chemistry or “cow college” professor in the institution, save “old” Moss, head of the department, and even him they puzzled and edified more than once. Lloyd’s discovery of the “death bacillus” of the sea toad, and his experiments on it with potassium cyanide, sent his name and that of his university ringing round the world; nor was Paul a whit behind when he succeeded in producing laboratory colloids exhibiting amœbalike activities, and when he cast new light upon the processes of fertilization through his startling experiments with simple sodium chlorides and magnesium solutions on low forms of marine life.

It was in their undergraduate days, however, in the midst of their profoundest plunges into the mysteries of organic chemistry, that Doris Van Benschoten entered into their lives. Lloyd met her first, but within twenty-four hours Paul saw to it that he also made her acquaintance. Of course, they fell in love with her, and she became the only thing in life worth living for. They wooed her with equal ardor and fire, and so intense became their struggle for her that half the student-body took to wagering wildly on the result. Even “old” Moss, one day, after an astounding demonstration in his private laboratory by Paul, was guilty to the extent of a month’s salary of backing him to become the bridegroom of Doris Van Benschoten.

In the end she solved the problem in her own way, to everybody’s satisfaction except Paul’s and Lloyd’s. Getting them together, she said that she really could not choose between them because she loved them both equally well; and that, unfortunately, since polyandry was not permitted in the United States she would be compelled to forego the honor and happiness of marrying either of them. Each blamed the other for this lamentable outcome, and the bitterness between them grew more bitter.

But things came to a head soon enough. It was at my home, after they had taken their degrees and dropped out of the world’s sight, that the beginning of the end came to pass. Both were men of means, with little inclination and no necessity for professional life. My friendship and their mutual animosity were the two things that linked them in any way together. While they were very often at my place, they made it a fastidious point to avoid each other on such visits, though it was inevitable, under the circumstances, that they should come upon each other occasionally.

On the day I have in recollection, Paul Tichlorne had been mooning all morning in my study over a current scientific review. This left me free to my own affairs, and I was out among my roses when Lloyd Inwood arrived. Clipping and pruning and tacking the climbers on the porch, with my mouth full of nails, and Lloyd following me about and lending a hand now and again, we fell to discussing the mythical race of invisible people, that strange and vagrant people the traditions of which have come down to us. Lloyd warmed to the talk in his nervous, jerky fashion, and was soon interrogating the physical properties and possibilities of invisibility. A perfectly black object, he contended, would elude and defy the acutest vision.

“Color is a sensation,” he was saying. “It has no objective reality. Without light, we can see neither colors nor objects themselves. All objects are black in the dark, and in the dark it is impossible to see them. If no light strikes upon them, then no light is flung back from them to the eye, and so we have no vision-evidence of their being.”

“But we see black objects in daylight,” I objected.

“Very true,” he went on warmly. “And that is because they are not perfectly black. Were they perfectly black, absolutely black, as it were, we could not see them—ay, not in the blaze of a thousand suns could we see them! And so I say, with the right pigments, properly compounded,

an absolutely black paint could be produced which would render invisible whatever it was applied to.”

“It would be a remarkable discovery,” I said non-committally, for the whole thing seemed too fantastic for aught but speculative purposes.

“Remarkable!” Lloyd slapped me on the shoulder. “I should say so. Why, old chap, to coat myself with such a paint would be to put the world at my feet. The secrets of kings and courts would be mine, the machinations of diplomats and politicians, the play of stock-gamblers, the plans of trusts and corporations. I could keep my hand on the inner pulse of things and become the greatest power in the world. And I—” He broke off shortly, then added, “Well, I have begun my experiments, and I don’t mind telling you that I’m right in line for it.”

A laugh from the doorway startled us. Paul Tichlorne was standing there, a smile of mockery on his lips.

“You forget, my dear Lloyd,” he said.

“Forget what?”

“You forget,” Paul went on—“ah, you forget the shadow.”

I saw Lloyd’s face drop, but he answered sneeringly, “I can carry a sunshade, you know.” Then he turned suddenly and fiercely upon him. “Look here, Paul, you’ll keep out of this if you know what’s good for you.”

A rupture seemed imminent, but Paul laughed good-naturedly. “I wouldn’t lay fingers on your dirty pigments. Succeed beyond your most sanguine expectations, yet you will always fetch up against the shadow. You can’t get away from it. Now I shall go on the very opposite tack. In the very nature of my proposition the shadow will be eliminated—”

“Transparency!” ejaculated Lloyd, instantly. “But it can’t be achieved.”

“Oh, no; of course not.” And Paul shrugged his shoulders and strolled off down the brier-rose path.

This was the beginning of it. Both men attacked the problem with all the tremendous energy for which they were noted, and with a rancor and bitterness that made me tremble for the success of either. Each trusted me to the utmost, and in the long weeks of experimentation that followed I was made a party to both sides, listening to their theorizings and witnessing their demonstrations. Never, by word or sign, did I convey to either the slightest hint of the other’s progress, and they respected me for the seal I put upon my lips.

Lloyd Inwood, after prolonged and unintermittent application, when the tension upon his mind and body became too great to bear, had a strange way of obtaining relief. He attended prize fights. It was at one of these brutal exhibitions, whither he had dragged me in order to tell his latest results, that his theory received striking confirmation.

“Do you see that red-whiskered man?” he asked, pointing across the ring to the fifth tier of seats on the opposite side. “And do you see the next man to him, the one in the white hat? Well, there is quite a gap between them, is there not

“Certainly,” I answered. “They are a seat apart. The gap is the unoccupied seat.”

He leaned over to me and spoke seriously. “Between the red-whiskered man and the white-hatted man sits Ben Wasson. You have heard me speak of him. He is the cleverest pugilist of his weight in the country. He is also a Caribbean negro, full-blooded, and the blackest in the United States. He has on a black overcoat buttoned up. I saw him when he came in and took that seat. As soon as he sat down he disappeared. Watch closely; he may smile.”

I was for crossing over to verify Lloyd’s statement, but he restrained me. “Wait,” he said.

I waited and watched, till the red-whiskered man turned his head as though addressing the unoccupied seat; and then, in that empty space, I saw the rolling whites of a pair of eyes and the white double-crescent of two rows of teeth, and for the instant I could make out a negro's face. But with the passing of the smile his visibility passed, and the chair seemed vacant as before.

"Were he perfectly black, you could sit alongside him and not see him," Lloyd said; and I confess the illustration was apt enough to make me well-nigh convinced.

I visited Lloyd's laboratory a number of times after that, and found him always deep in his search after the absolute black. His experiments covered all sorts of pigments, such as lamp-blacks, tars, carbonized vegetable matters, soots of oils and fats, and the various carbonized animal substances.

"White light is composed of the seven primary colors," he argued to me. "But it is itself, of itself, invisible. Only by being reflected from objects do it and the objects become visible. But only that portion of it that is reflected becomes visible. For instance, here is a blue tobacco-box. The white light strikes against it, and, with one exception, all its component colors—violet, indigo, green, yellow, orange, and red—are absorbed. The one exception is *blue*. It is not absorbed, but reflected. Wherefore the tobacco-box gives us a sensation of blueness. We do not see the other colors because they are absorbed. We see only the blue. For the same reason grass is *green*. The green waves of white light are thrown upon our eyes."

"When we paint our houses, we do not apply color to them," he said at another time. "What we do is to apply certain substances that have the property of absorbing from white light all the colors except those that we would have our houses appear. When a substance reflects all the colors to the eye, it seems to us white. When it absorbs all the colors, it is black. But, as I said before, we have as yet no perfect black. *All* the colors are not absorbed. The perfect black, guarding against high lights, will be utterly and absolutely invisible. Look at that, for example."

He pointed to the palette lying on his work-table. Different shades of black pigments were brushed on it. One, in particular, I could hardly see. It gave my eyes a blurring sensation, and I rubbed them and looked again.

"That," he said impressively, "is the blackest black you or any mortal man ever looked upon. But just you wait, and I'll have a black so black that no mortal man will be able to look upon it—*and see it!*"

On the other hand, I used to find Paul Tichlorné plunged as deeply into the study of light polarization, diffraction, and interference, single and double refraction, and all manner of strange organic compounds.

"Transparency: a state or quality of body which permits all rays of light to pass through," he defined for me. "That is what I am seeking. Lloyd blunders up against the shadow with his perfect opaqueness. But I escape it. A transparent body casts no shadow; neither does it reflect light-waves—that is, the perfectly transparent does not. So, avoiding high lights, not only will such a body cast no shadow, but, since it reflects no light, it will also be invisible."

We were standing by the window at another time. Paul was engaged in polishing a number of lenses, which were ranged along the sill. Suddenly, after a pause in the conversation, he said, "Oh! I've dropped a lens. Stick your head out, old man, and see where it went to."

Out I started to thrust my head, but a sharp blow on the forehead caused me to recoil. I rubbed my bruised brow and gazed with reproachful inquiry at Paul, who was laughing in gleeful, boyish fashion.

"Well?" he said.

"Well?" I echoed.

“Why don’t you investigate?” he demanded. And investigate I did. Before thrusting out my head, my senses, automatically active, had told me there was nothing there, that nothing intervened between me and out-of-doors, that the aperture of the window opening was utterly empty. I stretched forth my hand and felt a hard object, smooth and cool and flat, which my touch, out of its experience, told me to be glass. I looked again, but could see positively nothing.

“White quartzose sand,” Paul rattled off, “sodic carbonate, slaked lime, cullet, manganese peroxide—there you have it, the finest French plate glass, made by the great St. Gobain Company, who made the finest plate glass in the world, and this is the finest piece they ever made. It cost a king’s ransom. But look at it! You can’t see it. You don’t know it’s there till you run your head against it.

“Eh, old boy! That’s merely an object-lesson—certain elements, in themselves opaque, yet so compounded as to give a resultant body which is transparent. But that is a matter of inorganic chemistry, you say. Very true. But I dare to assert, standing here on my two feet, that in the organic I can duplicate whatever occurs in the inorganic.

“Here!” He held a test-tube between me and the light, and I noted the cloudy or muddy liquid it contained. He emptied the contents of another test-tube into it, and almost instantly it became clear and sparkling.

“Or here!” With quick, nervous movements among his array of test-tubes, he turned a white solution to a wine color, and a light yellow solution to a dark brown. He dropped a piece of litmus paper into an acid, when it changed instantly to red, and on floating it in an alkali it turned as quickly to blue.

“The litmus paper is still the litmus paper,” he enunciated in the formal manner of the lecturer. “I have not changed it into something else. Then what did I do? I merely changed the arrangement of its molecules. Where, at first, it absorbed all colors from the light but red, its molecular structure was so changed that it absorbed red and all colors except blue. And so it goes, *ad infinitum*. Now, what I purpose to do is this.” He paused for a space. “I purpose to seek—ay, and to find—the proper reagents, which, acting upon the living organism, will bring about molecular changes analogous to those you have just witnessed. But these reagents, which I shall find, and for that matter, upon which I already have my hands, will not turn the living body to blue or red or black, but they will turn it to transparency. All light will pass through it. It will be invisible. It will cast no shadow.”

A few weeks later I went hunting with Paul. He had been promising me for some time that I should have the pleasure of shooting over a wonderful dog—the most wonderful dog, in fact, that ever man shot over, so he averred, and continued to aver till my curiosity was aroused. But on the morning in question I was disappointed, for there was no dog in evidence.

“Don’t see him about,” Paul remarked unconcernedly, and we set off across the fields.

I could not imagine, at the time, what was ailing me, but I had a feeling of some impending and deadly illness. My nerves were all awry, and, from the astounding tricks they played me, my senses seemed to have run riot. Strange sounds disturbed me. At times I heard the swish-swish of grass being shoved aside, and once the patter of feet across a patch of stony ground.

“Did you hear anything, Paul?” I asked once.

But he shook his head, and thrust his feet steadily forward.

While climbing a fence, I heard the low, eager whine of a dog, apparently from within a couple of feet of me; but on looking about me I saw nothing.

I dropped to the ground, limp and trembling.

“Paul,” I said, “we had better return to the house. I am afraid I am going to be sick.”

“Nonsense, old man,” he answered. “The sunshine has gone to your head like wine. You’ll be all right. It’s famous weather.”

But, passing along a narrow path through a clump of cottonwoods, some object brushed against my legs and I stumbled and nearly fell. I looked with sudden anxiety at Paul.

“What’s the matter?” he asked. “Tripping over your own feet?”

I kept my tongue between my teeth and plodded on, though sore perplexed and thoroughly satisfied that some acute and mysterious malady had attacked my nerves. So far my eyes had escaped; but, when we got to the open fields again, even my vision went back on me. Strange flashes of van-colored, rainbow light began to appear and disappear on the path before me. Still, I managed to keep myself in hand, till the van-colored lights persisted for a space of fully twenty seconds, dancing and flashing in continuous play. Then I sat down, weak and shaky.

“It’s all up with me,” I gasped, covering my eyes with my hands. “It has attacked my eyes. Paul, take me home.”

But Paul laughed long and loud. “What did I tell you?—the most wonderful dog, eh? Well, what do you think?”

He turned partly from me and began to whistle. I heard the patter of feet, the panting of a heated animal, and the unmistakable yelp of a dog. Then Paul stooped down and apparently fondled the empty air.

“Here! Give me your fist.”

And he rubbed my hand over the cold nose and jowls of a dog. A dog it certainly was, with the shape and the smooth, short coat of a pointer.

Suffice to say, I speedily recovered my spirits and control. Paul put a collar about the animal’s neck and tied his handkerchief to its tail. And then was vouchsafed us the remarkable sight of an empty collar and a waving handkerchief cavorting over the fields. It was something to see that collar and handkerchief pin a bevy of quail in a clump of locusts and remain rigid and immovable till we had flushed the birds.

Now and again the dog emitted the vari-colored light-flashes I have mentioned. The one thing, Paul explained, which he had not anticipated and which he doubted could be overcome.

“They’re a large family,” he said, “these sun dogs, wind dogs, rainbows, halos, and parhelia. They are produced by refraction of light from mineral and ice crystals, from mist, rain, spray, and no end of things; and I am afraid they are the penalty I must pay for transparency. I escaped Lloyd’s shadow only to fetch up against the rainbow flash.”

A couple of days later, before the entrance to Paul’s laboratory, I encountered a terrible stench. So overpowering was it that it was easy to discover the source—a mass of putrescent matter on the doorstep which in general outlines resembled a dog.

Paul was startled when he investigated my find. It was his invisible dog, or rather, what had been his invisible dog, for it was now plainly visible. It had been playing about but a few minutes before in all health and strength. Closer examination revealed that the skull had been crushed by some heavy blow. While it was strange that the animal should have been killed, the inexplicable thing was that it should so quickly decay.

“The reagents I injected into its system were harmless,” Paul explained. “Yet they were powerful, and it appears that when death comes they force practically instantaneous disintegration. Remarkable! Most remarkable! Well, the only thing is not to die. They do not harm so long as one lives. But I do wonder who smashed in that dog’s head.”

Light, however, was thrown upon this when a frightened housemaid brought the news that Gaffer Bedshaw had that very morning, not more than an hour back, gone violently insane, and

was strapped down at home, in the huntsman's lodge, where he raved of a battle with a ferocious and gigantic beast that he had encountered in the Tichlorne pasture. He claimed that the thing, whatever it was, was invisible, that with his own eyes he had seen that it was invisible; wherefore his tearful wife and daughters shook their heads, and wherefore he but waxed the more violent, and the gardener and the coachman tightened the straps by another hole.

Nor, while Paul Tichlorne was thus successfully mastering the problem of invisibility, was Lloyd Inwood a whit behind. I went over in answer to a message of his to come and see how he was getting on. Now his laboratory occupied an isolated situation in the midst of his vast grounds. It was built in a pleasant little glade, surrounded on all sides by a dense forest growth, and was to be gained by way of a winding and erratic path. But I had travelled that path so often as to know every foot of it, and conceive my surprise when I came upon the glade and found no laboratory. The quaint shed structure with its red sandstone chimney was not. Nor did it look as if it ever had been. There were no signs of ruin, no debris, nothing.

I started to walk across what had once been its site. "This," I said to myself, "should be where the step went up to the door." Barely were the words out of my mouth when I stubbed my toe on some obstacle, pitched forward, and butted my head into something that *felt* very much like a door. I reached out my hand. It *was* a door. I found the knob and turned it. And at once, as the door swung inward on its hinges, the whole interior of the laboratory impinged upon my vision. Greeting Lloyd, I closed the door and backed up the path a few paces. I could see nothing of the building.

Returning and opening the door, at once all the furniture and every detail of the interior were visible. It was indeed startling, the sudden transition from void to light and form and color.

"What do you think of it, eh?" Lloyd asked, wringing my hand. "I slapped a couple of coats of absolute black on the outside yesterday afternoon to see how it worked. How's your head? You bumped it pretty solidly, I imagine."

"Never mind that," he interrupted my congratulations. "I've something better for you to do."

While he talked he began to strip, and when he stood naked before me he thrust a pot and brush into my hand and said, "Here, give me a coat of this."

It was an oily, shellac-like stuff, which spread quickly and easily over the skin and dried immediately.

"Merely preliminary and precautionary," he explained when I had finished; "but now for the real stuff."

I picked up another pot he indicated, and glanced inside, but could see nothing.

"It's empty," I said.

"Stick your finger in it."

I obeyed, and was aware of a sensation of cool moistness. On withdrawing my hand I glanced at the forefinger, the one I had immersed, but it had disappeared. I moved it, and knew from the alternate tension and relaxation of the muscles that I moved it, but it defied my sense of sight. To all appearances I had been shorn of a finger; nor could I get any visual impression of it till I extended it under the skylight and saw its shadow plainly blotted on the floor.

Lloyd chuckled. "Now spread it on, and keep your eyes open."

I dipped the brush into the seemingly empty pot, and gave him a long stroke across his chest. With the passage of the brush the living flesh disappeared from beneath. I covered his right leg, and he was a one-legged man defying all laws of gravitation. And so, stroke by stroke, member by member, I painted Lloyd Inwood into nothingness. It was a creepy experience, and I was glad

when naught remained in sight but his burning black eyes, poised apparently unsupported in mid-air.

"I have a refined and harmless solution for them," he said. "A fine spray with an air-brush, and presto! I am not."

This deftly accomplished, he said, "Now I shall move about, and do you tell me what sensations you experience."

"In the first place, I cannot see you," I said, and I could hear his gleeful laugh from the midst of the emptiness. "Of course," I continued, "you cannot escape your shadow, but that was to be expected. When you pass between my eye and an object, the object disappears, but so unusual and incomprehensible is its disappearance that it seems to me as though my eyes had blurred. When you move rapidly, I experience a bewildering succession of blurs. The blurring sensation makes my eyes ache and my brain tired."

"Have you any other warnings of my presence?" he asked.

"No, and yes," I answered. "When you are near me I have feelings similar to those produced by dank warehouses, gloomy crypts, and deep mines. And as sailors feel the loom of the land on dark nights, so I think I feel the loom of your body. But it is all very vague and intangible."

Long we talked that last morning in his laboratory; and when I turned to go, he put his unseen hand in mine with nervous grip, and said, "Now I shall conquer the world!" And I could not dare to tell him of Paul Tichlorne's equal success.

At home I found a note from Paul, asking me to come up immediately, and it was high noon when I came spinning up the driveway on my wheel. Paul called me from the tennis court, and I dismounted and went over. But the court was empty. As I stood there, gaping open-mouthed, a tennis ball struck me on the arm, and as I turned about, another whizzed past my ear. For aught I could see of my assailant, they came whirling at me from out of space, and right well was I peppered with them. But when the balls already flung at me began to come back for a second whack, I realized the situation. Seizing a racquet and keeping my eyes open, I quickly saw a rainbow flash appearing and disappearing and darting over the ground. I took out after it, and when I laid the racquet upon it for a half-dozen stout blows, Paul's voice rang out:

"Enough! Enough! Oh! Ouch! Stop! You're landing on my naked skin, you know! Ow! O-ww! I'll be good! I'll be good! I only wanted you to see my metamorphosis," he said ruefully, and I imagined he was rubbing his hurts.

A few minutes later we were playing tennis—a handicap on my part, for I could have no knowledge of his position save when all the angles between himself, the sun, and me, were in proper conjunction. Then he flashed, and only then. But the flashes were more brilliant than the rainbow—purest blue, most delicate violet, brightest yellow, and all the intermediary shades, with the scintillant brilliancy of the diamond, dazzling, blinding, iridescent.

But in the midst of our play I felt a sudden cold chill, reminding me of deep mines and gloomy crypts, such a chill as I had experienced that very morning. The next moment, close to the net, I saw a ball rebound in mid-air and empty space, and at the same instant, a score of feet away, Paul Tichlorne emitted a rainbow flash. It could not be he from whom the ball had rebounded, and with sickening dread I realized that Lloyd Inwood had come upon the scene. To make sure, I looked for his shadow, and there it was, a shapeless blotch the girth of his body, (the sun was overhead), moving along the ground. I remembered his threat, and felt sure that all the long years of rivalry were about to culminate in uncanny battle.

I cried a warning to Paul, and heard a snarl as of a wild beast, and an answering snarl. I saw the dark blotch move swiftly across the court, and a brilliant burst of van-colored light moving with

equal swiftness to meet it; and then shadow and flash came together and there was the sound of unseen blows. The net went down before my frightened eyes. I sprang toward the fighters, crying:

“For God’s sake!”

But their locked bodies smote against my knees, and I was overthrown.

“You keep out of this, old man!” I heard the voice of Lloyd Inwood from out of the emptiness. And then Paul’s voice crying, “Yes, we’ve had enough of peacemaking!”

From the sound of their voices I knew they had separated. I could not locate Paul, and so approached the shadow that represented Lloyd. But from the other side came a stunning blow on the point of my jaw, and I heard Paul scream angrily, “Now will you keep away?”

Then they came together again, the impact of their blows, their groans and gasps, and the swift flashings and shadow-movings telling plainly of the deadliness of the struggle.

I shouted for help, and Gaffer Bedshaw came running into the court. I could see, as he approached, that he was looking at me strangely, but he collided with the combatants and was hurled headlong to the ground. With despairing shriek and a cry of “O Lord, I’ve got ’em!” he sprang to his feet and tore madly out of the court.

I could do nothing, so I sat up, fascinated and powerless, and watched the struggle. The noon-day sun beat down with dazzling brightness on the naked tennis court. And it *was* naked. All I could see was the blotch of shadow and the rainbow flashes, the dust rising from the invisible feet, the earth tearing up from beneath the straining foot-grips, and the wire screen bulge once or twice as their bodies hurled against it. That was all, and after a time even that ceased. There were no more flashes, and the shadow had become long and stationary; and I remembered their set boyish faces when they clung to the roots in the deep coolness of the pool.

They found me an hour afterward. Some inkling of what had happened got to the servants and they quitted the Tichlorne service in a body. Gaffer Bedshaw never recovered from the second shock he received, and is confined in a madhouse, hopelessly incurable. The secrets of their marvellous discoveries died with Paul and Lloyd, both laboratories being destroyed by grief-stricken relatives. As for myself, I no longer care for chemical research, and science is a tabooed topic in my household. I have returned to my roses. Nature’s colors are good enough for me.