

## CHAPTER II



## "POWER STRUGGLE"

"Bouncing and flying have got to be some of the most fun things ever." Kinetic thought to himself as he rebounded off a wall and hit the ground rolling. He came to his feet and spun around happily, surprising people who stood nearby. They all stopped to stare, amazed that they were in the presence of such an amazing celebrity.

As the fastest man alive, Kinetic was an outstanding athlete, so much so that the world had made it illegal for him to join any sports teams. As a master of converting his body's **potential energy**<sup>52</sup> into **kinetic energy**<sup>53</sup>, he could accelerate faster, jump higher, run farther, and hit harder than anyone, anywhere, anytime. He could jump off a ten story building and stick the landing perfectly. He could bounce off a moving train and use that energy to arrive safely at an appointment ten miles away.

People had filmed his stunts and exploits, and no one had ever been able to disprove his abilities. He wasn't some magician or illusionist. He was the real thing. He could really do all he claimed to, and the world knew him as a real live super character.

He wasn't really a hero, because he didn't fight crime. Fast he might be, but he wasn't bulletproof. He wasn't a villain either, unless using your natural, unique talents to **work**<sup>54</sup> and earn a living was villainous, and he was pretty sure it wasn't. He made good money doing movie stunts, showing up on talk shows, giving motivational speeches to students, and being a public figure.

He thought of himself as a nice guy, but he never would have thought of himself as a hero, but the world had plans for him. There was an explosion one day, and someone's life was forever changed for the worse. Kinetic saw it on the news, but he never thought it had anything to do with him...

Greg Nelson had been a pretty regular guy before the accident. He'd been mild-mannered, humorous, and well liked by his coworkers at the **Nuclear Energy**<sup>55</sup> plant. He liked to play occasional jokes on them, and they would do the same to him. It was always harmless, until the day he accidentally got locked in a test chamber and became Irradiated Man!

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<sup>52</sup> POTENTIAL ENERGY: Energy an object has because of its position or location. Given the right circumstance, that energy can change to kinetic energy.

<sup>53</sup> KINETIC ENERGY: The energy of movement. This is the opposite of potential energy.

<sup>54</sup> WORK: Applying force over distance to get a task done.  $Work = Force * Distance$ .

<sup>55</sup> NUCLEAR ENERGY: Energy released by the joining or splitting of atoms.

There was a massive amount of **energy**<sup>56</sup> released. **Chemical reactions**<sup>57</sup> occurred on the **microscopic**<sup>58</sup> level, forever changing his body. **Radiation**<sup>59</sup> flooded through him, remaking him, rather than killing him. The doctors said he was lucky to be alive, but he found it to be a curse. Anything he touched wilted and died, undergoing **chemical changes**<sup>60</sup> because of his touch. His miraculous survival became a tedious existence, and he grew sullen while doctors poked and prodded him and **experimented**<sup>61</sup> on him.

Eventually, he'd had enough, and he broke out!

With enough energy stored in his body to light up every house in the country for a year, he had more than enough energy to overheat the **gases**<sup>62</sup> in his hospital room. **Convection**<sup>63</sup> currents lifted superheated **air mass**<sup>64</sup> up to the sprinkler heads, and they burst open, spraying the room with water. Another touch of his hand and a simple **energy transfer**<sup>65</sup> overloaded the electrical **circuits**<sup>66</sup> in the whole wing. Locks popped open and everyone was released, including him.

Security guards tried to stop him, but bullets were ineffective when he could give off so much **heat**<sup>67</sup> at will. The **thermal energy**<sup>68</sup> he carried around in him easily melted metal and stone alike. No building could hold Irradiated Man, not when he found that could simply **melt**<sup>69</sup> his way through the walls. It was hard learning all these new powers, but he would figure it out if he had enough time.

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<sup>56</sup> ENERGY: A measure of how much work something could do. High energy could do a lot of work by providing lots of force.

<sup>57</sup> CHEMICAL REACTION: A change in which chemicals interact and new substances are formed. Some reactions give off heat and energy, and can be quite powerful.

<sup>58</sup> MICROSCOPIC: Something so small that it can only be used with special tools, like a microscope.

<sup>59</sup> RADIATION: Energy traveling in waves through space or matter.

<sup>60</sup> CHEMICAL CHANGES: Another name for Chemical Reactions.

<sup>61</sup> EXPERIMENT: A test of a hypothesis, a scientific process used to determine an answer.

<sup>62</sup> GAS: One of the three states of matter. A gas has no definite volume or shape.

<sup>63</sup> CONVECTION: When heat transfers through a gas or liquid. Hot rises and cold sinks.

<sup>64</sup> AIR MASS: A large body of air within similar properties throughout.

<sup>65</sup> ENERGY TRANSFER: The movement of energy from one object or mass to another.

<sup>66</sup> CIRCUIT: A complete path or track that electric current will make.

<sup>67</sup> HEAT: A form of energy that is transferred by a difference in temperature.

<sup>68</sup> THERMAL ENERGY: Another name for heat.

<sup>69</sup> MELT: A change of state from solid to liquid.

Unknowingly, Irradiated Man spread **pollution**<sup>70</sup> in his wake, damaging the **environment**<sup>71</sup> with every step he took outside of his lead-shielded room. Environmental agencies protested his escape, declaring that he would cause many **endangered species**<sup>72</sup> nearby to go **extinct**<sup>73</sup>, while civil rights groups demanded that he have his freedom. It was a bureaucratic mess, and no one seemed to have the answers!

Everyone wanted Irradiated Man to do something or to go somewhere, but he wouldn't listen. Fearing what might happen if this menace was loose for too long, the President himself asked Kinetic to step in. Perhaps the world's fastest man could run in quick and save the world?

"I'm no hero. I'm just quick on my feet!" Kinetic protested. He'd grown up simply, and even if he was famous now, he held no illusions about his powers. He could bounce and he could run fast, but he wasn't sure that would protect him from Irradiated Man.

"You have to try. The country, no, the world depends on you!" The President insisted. "You'd really be doing us a favor, Special K."

Kinetic couldn't resist the President when he asked nicely, especially when he used his nickname. "I'll try, but I need a really fancy suit if I'm going to be around Irradiated Man. I need something space age, something like the astronauts wear. It has to **insulate**<sup>74</sup> me from his heat and radiation."

"We'll get our best scientists and tailors in on this project, Kinetic, you have my word." The President promised, and, true to his word, the commissioned bright red and silver super suit was made.

Kinetic, of course, had to jazz up his new super suit with a few touches of his own, but he mostly left it as it was. Space age scientists have *some* style, after all. Geared up and looking his best, Kinetic bounced out of Washington D.C. off the first plane, soaring skyward and toward the last reported location of Irradiated Man.

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<sup>70</sup> POLLUTION: Harmful contamination in an environment or body.

<sup>71</sup> ENVIRONMENT: All of the living and nonliving things in an area where an organism lives.

<sup>72</sup> ENDANGERED SPECIES: A type of organism that only has a few living members left. They are nearly extinct.

<sup>73</sup> EXTINCT: When all of a specific type of organism have died. There are no more left.

<sup>74</sup> INSULATE: To prevent the transfer of heat or energy.

It wasn't hard to find Irradiated Man. He left a trail of waste and ruin behind him. Whole **ecosystems**<sup>75</sup> were devastated at his passing, and **natural resources**<sup>76</sup> had been destroyed. It might be years before the world would recover, even with focused **reclamation**<sup>77</sup> efforts. Although it was dangerous, Kinetic knew he'd made the right choice by agreeing to this. He couldn't stand by and watch these **habitats**<sup>78</sup> die, their **food chains**<sup>79</sup> carelessly broken.

Kinetic found Irradiated Man relaxing beside a lake, which had turned green and **boiled**<sup>80</sup> with the heat that Irradiated Man conducted from his body into the **liquid**<sup>81</sup> water. Heat waves **reflected**<sup>82</sup> off the sickly water and **water vapor**<sup>83</sup> rose in steam<sup>84</sup> clouds. The trees around him had already burned down, and all the grasses had died, leaving scorched footprints across the land. Irradiated Man was influencing the whole **water cycle**<sup>85</sup> in the area!

"Whoa, Man! Look what you're doing to this place!" Kinetic cried out as he skidded to a halt beside the nasty lake.

"Who cares? They did this to me, and I have to go somewhere."

"I feel for you, but look at this! There are dead animals everywhere. This lake looks like pea soup with fish. It's gross."

"I can't help that. The world has plenty of lakes, anyway. If I take this one for myself, who cares? I'm tired. I might take a nap and soak up some **solar energy**<sup>86</sup>."

"Solar energy?"

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<sup>75</sup> ECOSYSTEM: All of the organisms and communities that interact with one another in an area.

<sup>76</sup> NATURAL RESOURCES: Things like water, wood, soil, and metals that can be used to satisfy a need.

<sup>77</sup> RECLAMATION: To fix and clean a damaged and polluted environment.

<sup>78</sup> HABITATS: The area, including all the living and nonliving things, in which an organism lives.

<sup>79</sup> FOOD CHAIN: How energy passes through an ecosystem, from producers to consumers and decomposers.

<sup>80</sup> BOIL: A change of state where a liquid changes into a gas.

<sup>81</sup> LIQUID: One of the three states of matter. A liquid has a definite volume, but no definite shape.

<sup>82</sup> REFLECTION: When heat or light bounces off something and changes direction.

<sup>83</sup> WATER VAPOR: Water in a gaseous state instead of being a liquid or solid.

<sup>84</sup> STEAM: Heated water that has changed into a gas.

<sup>85</sup> WATER CYCLE: A never-ending cycle of water moving through our world that includes precipitation, evaporation, and condensation, all occurring at the same time in different parts of the world.

<sup>86</sup> SOLAR ENERGY: Energy from the sun.

"Didn't they tell you before you came? I am almost pure energy. I can absorb it from anywhere. I can siphon **electrical energy**<sup>87</sup> from power lines, solar energy from the sun, **chemical energy**<sup>88</sup> from **batteries**<sup>89</sup>, and **geothermal energy**<sup>90</sup> from the heat of the earth's **crust**<sup>91</sup> and **mantle**<sup>92</sup>. It's a pity there aren't any waterfalls or dams nearby, or I'd steal some **hydroelectric energy**<sup>93</sup>, too."

"Why not some **wind energy**<sup>94</sup> while you're at it?" Kinetic remarked sarcastically.

"I hadn't thought of that. Good idea!" Irradiated Man said with a chuckle. He thought this whole situation was hilarious, but it irritated Kinetic.

"What do you need more energy for? Why don't you burn off what you have and just try to live normal?"

"Why? They did this to me when I was normal. I thought I had friends, and look what they did! I'm a monster. I can't touch anything."

Kinetic shook his head. He could tell that Irradiated Man wasn't bad at heart; he'd just had a hard time and was in a tough situation. "I'm not normal either, but I'm not ruining things for everyone else."

"Oh yeah? What's so special about you, other than your odd fashion sense?"

"I can manipulate kinetic and potential energy."

"That's it?" Irradiated Man wasn't that impressed.

"Well, it's pretty useful. I can't get hurt in a fall, because I can change my kinetic energy to potential and slow my fall."

"That's useful, but at least you can still interact with people. Look at me. I kill everything near me."

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<sup>87</sup> ELECTRICAL ENERGY: Energy made available by the flow of current through a conductor.

<sup>88</sup> CHEMICAL ENERGY: Energy made by the chemical reactions of two or more substances.

<sup>89</sup> BATTERIES: Devices that store chemical energy to provide electric current.

<sup>90</sup> GEOTHERMAL ENERGY: Energy from the heat of the earth.

<sup>91</sup> CRUST: The outer layer of the earth, where we live and all the land is.

<sup>92</sup> MANTLE: The middle layers of the world, nearly all magma that circulates around, which the crust floats upon.

<sup>93</sup> HYDROELECTRIC ENERGY: Energy collected from moving water, often collected in hydroelectric dams.

<sup>94</sup> WIND ENERGY: Energy collected by persistent winds. Usually wind turns fans, which power turbines to create current.

"It took practice. I have to be careful. If someone hits me or bumps into me, I might go flying and hurt someone. It's dangerous. We have to learn to control ourselves."

"I don't think I'll ever learn."

"Let's try together." Kinetic offered, extending a hand. He hoped the suit would protect him.

Irradiated Man lifted a green hand out to take Kinetic's hand, but then changed his mind. "Why should I be weak? I can take what I want. There are limited resources left in the world, and the powerful should have them."

Kinetic's hand fell back to his side, and worries seized him. If Irradiated Man didn't come in peacefully, he didn't know what he'd do. "Man, no! You could be the answer. **Fossil fuels**<sup>95</sup> and **nonrenewable resources**<sup>96</sup> are running low. You could be the battery that powers this nation forever, a living **renewable resource**<sup>97</sup>. You could do so much good."

"That sounds boring."

"It's about **conservation**<sup>98</sup>. You could help us save what is left. You wouldn't even have to do it all the time. Just come in now and then for some energy transfers, and I'm sure we can find some sort of place for you to live. There must be certain things that might survive around you, especially if you keep burning off your excess energy to keep this radiation around you to a minimum. It's not hopeless."

Irradiated Man laughed bitterly. It's all over for me, I'm afraid, and if it's over for me, it must be over for you, too. He gathered up his energy and superheated a ball of air that he threw at Kinetic.

Kinetic jumped out of the way, nearly getting burnt to a crisp as he dodged away from the fireball. As he did, a wave of energy washed over him, and he thought he saw a way to beat Irradiated Man at his own game. Taunting Irradiated Man, Kinetic bounced back and forth, easily dodging everything that was thrown at him.

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<sup>95</sup> FOSSIL FUELS: Fuels burned for energy, which come from fossilized organic matter from long ago. Examples are: coal, gasoline, natural gas, oil, and peat.

<sup>96</sup> NONRENEWABLE RESOURCES: Resources that cannot easily be replaced in a short period of time. Fossil fuels are nonrenewable resources.

<sup>97</sup> RENEWABLE RESOURCES: Resources that can be replaced in a reasonably short period of time, like sunlight, clean water, rain, or wood.

<sup>98</sup> CONSERVATION: Careful use of resources to slow their use and/or their disappearance.

As he grew angrier and angrier, Irradiated Man burned off more and more energy to throw fireballs. His energy reserves depleted faster than they recovered, and he was gradually growing weaker without realizing it. When he'd burned through enough of his energy that his skin had faded back to white instead of green, Kinetic charged in and blasted him right in the jaw with his gloved fist.

POW!

Irradiated Man stumbled backward.

CRACK!

Another punch felled him like a tree cut by a lumberjack.

Weakly, Irradiated Man asked, "How could someone like you beat me?"

"You forgot your science. When you heat something up, you're giving it energy. Thermal Energy and **Light**<sup>99</sup> are all just **molecules**<sup>100</sup> bouncing off each other. It's a lot of **mechanical energy**<sup>101</sup> - tons of kinetic and potential energy waiting to be used. When you made things really hot, I took all of that kinetic energy from the individual molecules and stored it up. It took a lot of **atoms**<sup>102</sup> from a lot of **compounds**<sup>103</sup>, but eventually I had enough energy to stop you."

Irradiated Man laughed weakly. "I work at a power plant. I should have known better. I play with energy all day."

Kinetic offered Irradiated Man a hand again. "Let's work together. We can make this world better."

"Maybe I can charge you up and you can run in a giant wheel to power light bulbs like a hamster?" Irradiated Man suggested.

Kinetic shook his head. "Don't press your luck, pal."

From then on, the two worked together to solve the world's energy problems. Irradiated Man still didn't get a nickname, though, not like Kinetic A.K.A. Special K.

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<sup>99</sup> LIGHT: A type of visible radiation.

<sup>100</sup> MOLECULE: A combination of two or more atoms, either of the same element or of different elements.

<sup>101</sup> MECHANICAL ENERGY: The sum of the potential and kinetic energy present in an object.

<sup>102</sup> ATOM: The smallest unit of matter that still retains the properties of an element.

<sup>103</sup> COMPOUND: A combination of two or more atoms of different elements.