Baker/Danny Dunn, Corridors of Mirrors

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Synopsis

Professor Bullfinch has invented a new kind of glass. At the same time he is exploring the "nanotechnology" of fibers of spun clear plastic that can transmit light similar to fiber optics. Except that the light from a laboratory-bound laser is completely undiminished as it travels through them. There is no loss or degradation of the light whatsoever in the new optic channels. He decides to place it into a glass window pane to try and make a display screen that may one day carry information throughout the world at low cost to the user. He decides to embed the pane with thin, fiber-like webbing that is invisible inside the glass.

As Danny carries a container of silver nitrate solution back to its storage in Bullfinch's lab, he trips and the container falls on top of the glass. Liquid silver nitrate completely covers the glass pane chemically with a perfect finish of a reflecting surface. The laser light is still active and the light from it illuminates the pane. A piece of paper from a notebook standing near the glass slips and falls onto the glowing glass. The paper disappears into the glass itself! Danny and the professor watch in amazement as it slowly recedes from view. When the laser light is turned off, the paper floats back up from being inside the glass to the surface. It is completely unharmed.

Professor Bullfinch hurriedly calls his fellow scientist Dr. Grimes who is visiting with colleagues in Washington D. C. at the moment. At Bullfinch's urging, Grimes and his friend (Dr. Kenneth Starke), a specialist in super cooled amorphous materials take the next plane out to Midston.

Professor Bullfinch has gone one step further in his investigation. He has created two large windows, six feet by three feet and one inch thick. Both of them are embedded with the new fibers and covered with a silver nitrate solution. The surfaces are flawless and remain dust free.

A laser is beaming its light into the side of one of the large windows. It begins to activate the light energy capability of the fibers. As both mirrors face one another, an "infinite" number of reflections are visible. There are thousands of them visible to those in the lab.

Normally, when using two mirrors in this fashion, the two reflections darken quickly due to imperfections in the glass and surface. Not with the glass Bullfinch is analyzing. The pane with the laser light becomes flexible and spongy. Professor Bullfinch shows how the surface can be penetrated. And to Dr. Grimes' and Starke's amazement, Dr. Bullfinch walks into the flexible mirror. Outside the mirrors, Grimes and the others watch Bullfinch wave to them and walk around the curving

reflections. He disappears from view. Countless corridors of mirrors fading into the distance have created a pathway for the professor. It is truly a walk into infinity. Irene uses a bright light inside the lab to communicate with the professor. A quick signal from it pointed into the mirrors, and the professor returns to the lab. He steps out of the laser-activated mirror, unharmed and understandably, quite excited.

A four-wheeled motorized robot that Bullfinch uses around the lab to gently carry objects is sent into the mirror system. It is nicknamed "4EVER" (electronic vehicular exploring robot), since it has four wheels. The computerized robot is powered by light. And there is plenty of it inside the mirrored corridors. Indeed, the robot has an infinite supply of light. It enters the flexible mirror and then dutifully disappears around the bend of the reflections made by both mirrors. It is making a quest into the unknown, because, as Dr. Bullfinch says, "the unknown awaits discovery with tools that extend a scientist's reach." 4EVER is one such tool.

All six of the explorers now try the mirror. Bullfinch, Grimes, Starke along with Danny, Joe and Irene decide to explore the path to "infinity."

Along the way the explorers see vast corridors leading to many wonderful discoveries. The professors get separated and start bumping about against many panes of glass. They can see each other but remain apart and out of touch with one another. They cannot find their original pathway. Irene goes missing. Danny meets himself in another corridor. Only Joe (cautious as usual) stayed behind, and stood at the very first mirror, flashing the light as a beacon helping all of the others to find their way back to the laboratory.

Professor Bullfinch's robot had memorized the original pathway and shows them the correct one to follow. But the robot possesses its own intelligence; a sort of scientific curiosity that Bullfinch had programmed into it. And its ability to gather light beams for its power and its sense of inquiry lead the robot into trouble.

4EVER discovers an entity in one of the corridors many thousands of panes in the distance away from the lab. There is a strange cloud of light energy that changes shape and size. It is light that has collected from the internal reflections and has built up in a form of stored energy. Prodded from its resting place, it pursues the three scientists and Danny and Irene. It chases all of them to where Joe is standing, who is dutifully signaling all of them. At the last possible moment,

4EVER prevents the entity from exiting the mirrors by breaking one of the active mirrors into thousands of pieces. The pieces glow for a moment and the light fades.

Back safe in the laboratory, Grimes, Bullfinch and Starke switch off the equipment powering the laser. The nanotechnology fibers are still glowing minutes later due to the perfect internal reflections in the optic lines. As the light fades in the remaining mirror, the explorers watch 4EVER and the cloud battle one another. The entity and robot are trapped forever. As Professor Starke put it, "The energy each one generates will be used by the other to power its attack against its foe. Think of it. For all eternity they will be at each other's throats. Think of it." The others are now safe. All three professors clean up the broken pieces. The other unbroken reflecting glass pane is covered permanently.