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OUR COVER ILLUSTRATION

Depicts an exciting episode from Otto Willi Gail's novel "The Shot Into Infinity."

Here we see the spaceship Gorgon plunging towards the moon. The moon may be observed at the right-hand side, still a great distance away.

In the position shown, the spaceship is rushing ahead at a tremendous speed, yet it is possible for the astronauts to venture outside the spaceship in airtight and cold-insulated space-suits. The men are connected to the spaceship by lengths of thin telephone wires, by means of which they can converse with each other. Inasmuch as they are in the so-called "free-fall," there is no strain on the light telephone wires, which they also use to pull themselves back to the ship. They may also return to the ship by flying plates, as is also shown, in the opposite direction to which they wish to travel.

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The Artificial MAN

by Clare Winger Harris



Before David's startled gaze the newcomer placed his right hand to his left shoulder and removed the left arm. He then proceeded to dismember himself until only a torso, head and one arm remained.

In the annals of surgery no case has ever left quite as horrible an impression upon the public as did that of George Gregory, a student of Austin College. Young Gregory was equally proficient in scholastic and athletic work, having been for two years captain of the football team, and for one year a marked success in intercollegiate debates. No student of the senior class of Austin or Decker will ever forget his masterful arguments as he upheld the affirmative in the question:—"Resolved that bodily perfection is a result of right thinking." Gregory gave every promise of being one of the masterful minds of the age; and if masterful in this instance means dominating, he was that—and more. Alas that his brilliant mentality was destined to degradation through the physical body—but that is my story.

It was the Thanksgiving game that proved the beginning of George's downfall. Warned by friends that he would be wise to desist from the more dangerous physical sports, he laughingly—though with a n q u e s - tional sincerity—referred to the context of his famous debate, declaring that a correct mental attitude toward life—he had this point down to a mathematical correctness—rendered physical disasters impossible. His sincerity in believing this was laudable, and so far his credence had stood him in good stead. No one who saw his well-proportioned six-foot figure making its way through the opponents' lines, could doubt that the science of thinking rightly was favorably exemplified in young Gregory.

But can thinking be an exact science? Before the close of that Thanksgiving game George was carried unconscious from the field, and in two days his right leg was amputated just below the hip.

During the days of his convalescence two bedside visitors brightened the weary hours spent upon the hospital cot. They were David Bell, a medical student, and Rosalind Nelson, the girl whom George had loved since his freshman year.

"I say, Rosalind," he ventured one day as she sat by his bedside. "It's too bad to think of you ever being tied up to a cripple. I'm willing to step aside—can't do it gracefully of course with only one leg—but I mean it, my dear girl. You don't want

only part of a husband!"

Rosalind smiled affectionately. "George, don't think for a minute that it matters to me. You're still you, and I love you dear. Can't you believe that? The loss of a bodily member doesn't alter your identity."

"That's just what gets me," responded her lover with a pained frown. "I have always believed, and do now, that the mental and physical are so closely related as to be inseparable. I think it is Browning who says, 'We know not whether soul helps body more than body helps soul.' They develop together, and if either is injured the other is harmed. Losing part of my body has made me lose part of my soul. I'm not what I was. My mental attitude has changed as a result of this abominable catastrophe. I'm no longer so confident. I feel myself slipping and I—oh it is unbearable!"

Rosalind endeavored to the best of her ability to reassure the unfortunate man, but he sank into a despondent mood, and seeing that her efforts at cheering him were unavailing, she arose and left him.

In the outer hall she met Bell on his way to visit the sick man. He noticed her troubled mien and asked if George were not so well today.

"Yes, David," she replied, a quiver in her voice, "the wound is healing nicely, but he is so morose. He has a notion—oh how can I

tell it—a sort of feeling that some of his mental poise and confidence have gone with his lost limb. You will soon be a graduate physician, won't you assure him that his fears are groundless?"

"I don't know but that his case is one for the minister or psychologist rather than the medical man," answered Bell. "His physical wound is healing, but it seems his mental wound is not. However, I will do my best, not only for your sake, Rosalind, but because I am interested in the happiness of my old college chum."

Rosalind smiled her gratitude and turned abruptly away to hide the tears that she had held back as long as possible.

Five months passed, and with the aid of a crutch George made excellent headway in overcoming the difficulties of locomotion. If David and Rosalind noticed a subtle change in the disposition and



CLARE WINGER HARRIS

It is well established today that human beings can get along without a number of their usual organs. We have seen men deprived of their arms and legs who could still do useful work. There are men living, and seemingly little the worse for it, who have lost either an eye or a nose, or have only one kidney, and it is now possible even to have an artificial voice in case a part of the larynx and the vocal chords have to be removed through disease.

That science will discover more and more how to artificially replace human organs is a foregone conclusion. How far this process may go no one however knows. Recent experiments on animals have shown that it is even possible for a cat to live with an artificial rubber heart. These experiments are all of vast importance to humanity, because we may be deprived of a number of our organs by accident or disease.

The author of the present story has taken these thoughts as a basis of a most interesting narrative which is in its entirety based upon excellent science, and there is no telling that an exact counterpart of what she so vividly describes may not come about sooner or later.

tell it—a sort of feeling that some of his mental poise and confidence have gone with his lost limb. You will soon be a graduate physician, won't you assure him that his fears are groundless?"

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character of their mutual friend, they made no further reference to it.

A Transformation

AT length came a day when in the company of both of these faithful friends George Gregory announced his intention of using an artificial limb instead of a crutch. His sweetheart voiced immediate remonstrance.

"No, George, I'd rather see you walking with the visible aid of a crutch than to think of your using an artificial leg. Somehow it seems like hypocrisy, a kind of appearing to be what you aren't. I know my idea is poorly expressed, but that's the way I feel about it."

A peculiar light came into Gregory's eyes, a light that neither friend had ever seen there before. He straightened visibly, almost without the aid of his crutch.

"I'll walk yet as well as any one and maybe it will give me back my mental confidence. My mind shall triumph over my body as well as it ever did!"

The artificial leg was duly applied to the hip stump, and it really was amazing to observe the rapidity with which Gregory mastered the art of using it proficiently. Anyone unacquainted with his deformity would never have realized that he did not possess two normal legs.

And then came the automobile accident a week before the time set for the Nelson-Gregory nuptials. How George Gregory's car was struck by an oncoming truck, reduced to a junk-heap, and George thrown into a ditch, so that one arm was finally caused to be amputated, never will be known, for George had always been a careful driver. Even with his artificial leg he declared he had no difficulty in putting on the brake. The fall had, as was proved later, caused also internal injuries so that some of the bodily organs did not function properly.

The months that followed were to all who were closely concerned with the accident, like a descent into Hades. Dr. Bell, serving as an intern in the Good Samaritan Hospital, devoted himself untiringly to the tragic case of George Gregory. A world famous specialist was summoned in consultation concerning the internal injuries sustained by Gregory. Very little hope was held out for the life of the unfortunate man, although there was one chance; an artificial kidney.* The vigorous constitution of the invalid came to his rescue. He not only survived the operation but seemed to be in the best of health afterward.

And it is not to be wondered that Rosalind began to doubt whether her love for George Gregory could remain the same as before. Thrown constantly as she was in the company of Dr. David Bell, observing his devoted care and interest in George, she began to compare, or rather to contrast, the two men. George's rapid deterioration was no longer a possible flight of the imagination. It was an actuality. It was no longer possible to overlook the meaning behind his words.

"God expresses Himself through the physical world," he said when the three were together at

*Note: An "artificial kidney" has been invented recently, and tried out successfully on dogs. A cylinder of glass contains a number of celloidin tubes which strain the poisons out of the blood.)

George's apartment on Kenneth Drive. "He is a Spirit, but He makes Himself manifest in the perfection of a physical world. As much of physical perfection as I have lost, that much of God or Goodness has left me and there are no two ways about it."

Remonstrance was useless, so convinced was the invalid that his theories were correct. Also in his mind there grew steadily an ever increasing dislike for the friend of his college days, the doctor. He could no longer be blind to the fact that it was a struggle for Rosalind to be loyal to him. He was also aware of the growing affection that existed between David and Rosalind. From a dislike his feelings gradually changed to those of implacable hatred for his former chum.

The Parting

AT length after weary days and nights of indecision Rosalind came to the conclusion that she could not marry George Gregory. She longed to tell David of her feelings, but could not because she was conscious of her love for the young doctor. The subject of marriage had not been mentioned by either George or Rosalind since the second accident, but instinctively the girl felt that her lover's previous offer at the time of his lost leg, to release her from their engagement, was not to be renewed; though he must have known that his qualifications as a husband were now fewer than they could possibly have been before.

The moment that Rosalind had dreaded came at last. They were strolling together one evening toward the outskirts of the town. The moon softened, with its silvery glow, objects that in the glare of noon stood out in too bold relief. As they left the highway for the river-path George said:

"Let us set a day for the wedding. I've waited long enough." As he spoke he put around her waist an arm, not one with which nature had equipped him, but one so cunningly wrought that a casual observer would never have known. But Rosalind knew! She shuddered, and in that act, George Gregory knew that his doom was sealed.

"I can't marry you, George," she pleaded in a hoarse, unnatural voice. "I am sorry that it is so, but I cannot do it."

The man laughed and the tones chilled the heart of the girl. "You said once that my identity remained, no matter what the physical imperfections of my body. Now you deny it!" His voice rose in his excitement.

"Listen, oh George," she cried now thoroughly panic-stricken. "You are yourself allowing your mental attitude toward life to be altered. You have admitted it. Had you remained unchanged mentally, I truly believe your physical difference would not have mattered. I loved you for what you were, but, George, you are so changed!"

"Yes I am changed," he shrieked, "but my desires and passions are no different, unless intensification indicates a difference."

He reached toward her, but adept as he was in the use of his two artificial limbs, she eluded his grasp and was off with a bound up the rough river-path and toward the highway. She heard distinctly the sound of pursuit. Could he outrun her handicapped as he was?

Once he fell, and the sound of muttered oaths came to her ears. On and on she flew, not daring to look back though she suspected that he was gaining. Just within the border of the town where the houses were somewhat scattered he caught her and simultaneously she fainted away.

When consciousness returned a dear familiar face was bent near her own. With a sob of joy she put her arms about David's neck, and in a few endearing words they plighted their troth.

David, on his way back from a professional call, where he was substituting for old Dr. Amos who was ill, had witnessed from a distance the two running figures. Before he arrived upon the spot with his car, the pursuing form had overtaken the other.

To rescue a maiden from the arms of her lover seemed a very peculiar service to render—but one look into the eyes of George Gregory proved to the doctor beyond the question of a doubt that he was not dealing with a sane man. The contest was an unequal one, though the agility displayed by the cripple would have done credit to a normal man of more than average prowess. David tried to reason with his antagonist, but the use of logic at that time was unavailing. It was a hard struggle, but George was finally willing to admit himself defeated.

A Man Obsessed

ABOUT three months following this incident Dr. Bell (now in possession of the office of the late Dr. Amos) was about to lock up after the afternoon consultations when he heard the approach of a belated visitor in the hall. Looking up he beheld Gregory who passed quickly through the waiting-room and into the inner office, closing the door behind him. The peculiar look of a fanatic, that had become more marked since his second accident, was evident now as he seated himself and turned wild eyes to the doctor.

"Don't be scared, doc," he jeered at sight of Bell's white drawn face. "I didn't come to blame you for winning Rosalind's love, though I confess the thought of your wedding next week goes considerably against the grain. I came for another purpose and I want you to help me."

He rose now and advanced toward the physician. The latter observed the perfect mastery of the artificial limbs, a mastery that proved how well the brain can be trained to control nerves and muscles under unusual conditions. Was all the effort of this brain being turned in that direction to the detriment of a well-balanced reasoning power?

"Here's my proposition, Bell," the words jangled harshly, bringing to a swift conclusion the doctor's thoughts regarding the changed mental status of his one-time friend. "I have decided what I want done. I'll admit that what I'm about to tell you will prove I have a mental quirk which, by the way, corresponds to my physical quirks, but this thing has become an obsession with me."

The speaker leaned forward and held the other's attention with a steady gaze. He then resumed. "I am going to try out an experiment, or rather have it tried out on me, for I shall be a passive factor in this case. I am going to find out how much of this mortal coil I can shuffle off and still maintain my personal identity as a piece of humanity here on earth. In other words, as much of my body as can be re-

moved and substituted by artificial parts, I wish to have done."

During Gregory's recital David's eyes had dilated in horror, and he unconsciously recoiled from his visitor until the width of the room was between them. Not a word could he utter. The seconds ticked away on the little ebony clock on the desk and still the two men regarded each other with unquestionable antagonism.

"Well, will you do it, Bell?" The man pointed significantly to the surgical instruments and the operating table. "I have ample means to pay you handsomely. I'm going to find out about this mortal body and its relation to the soul before I die. You've robbed me of one desire of my heart, but this you shall grant!"

At last Bell spoke, and with the sound of his voice his courage returned. "George, whether you believe it or not, you are a madman and I refuse to comply with your request. If, as you yourself maintain, with the loss of every bodily member, your mental and spiritual powers have waned, what in heaven's name tell me, would you be with only enough of your body left to chain your spirit to earth? I will not aid you in this mad project of yours. Go, or shall I have you taken to the hospital for the insane?"

George Gregory saw that further persuasion was useless. He walked toward the outer office but at the doorway he turned and faced Bell. "There are other surgeons in the world, and mark my words, I shall find out yet by how slender a thread body and soul can hang together."

The Artificial Man

FIVE years passed. David Bell married Rosalind Nelson and built up a splendid reputation as a surgeon. Nothing had been heard in those years of George Gregory. His memory passed as an evil dream and his name was never mentioned. Then one day (it was shortly after the erection of the new county hospital) David and a young intern by the name of Lucius Stevens were putting away the instruments after an operation, when they felt rather than heard the approach of an individual. Turning they beheld the unfamiliar form of a stranger. He was a little under average height. A cap covered the upper portion of his face and a long loose overcoat concealed most of his figure.

"What can we do for you, stranger?" asked Dr. Bell of the silent figure in the door.

"Stranger!" exclaimed the hollow, metallic voice that issued from somewhere beneath the visor of the cap. "I am no stranger, though possibly you do not recognize me. Do you remember your rival George Gregory, Dr. David Bell? I am he."

"You—it is impossible," exclaimed the amazed doctor. "Gregory was a tall man, altogether different in appearance. You—"

"Nevertheless I tell you I am George Gregory and I have come to settle old accounts with you. Clear out," he shouted to the frightened Stevens. "My trouble is not with you."

Lucius lost no time in following the stranger's suggestion. After his departure the two men in the operating room faced each other for some moments in silence.

"Before I have done with you," came the metallic

tones again, "I will explain a few things that may puzzle you."

Here he walked to the office door, locked it and put the key into the overcoat pocket. "Now, sit down, David Bell, don't be in a hurry, for you are not going to leave this room alive. I promise you that, and I am accustomed to doing what I promise."

Bell did as he was bade. The curiosity of his analytical mind was aroused and he wished to find out more about this stranger whose identity he could in no way associate with Gregory. Fascinated, he watched while the man removed his cap and overcoat, and then before David's startled gaze the newcomer placed his right hand to his left shoulder and with a slight manipulation removed the left arm which he propped up in the chair nearest him. He then seated himself and proceeded to dismember himself until nought but a torso, head and one arm remained, all of which were scarred with countless incisions. A mirthless laugh jolted to the depths the doctor's overwrought nerves. The features of the intruder were not recognizable as those of his former friend, Gregory. There was no nose, only two nostrils flat upon the surface of the face. The head was bald and earless, the mouth a toothless gap.

A shudder of disgust went through David, and again the dry laugh of this monstrosity echoed through the room.

"I'm not exactly pretty, eh? But I'm finding out what I wanted to know. After I left you five years ago I went to a famous German surgeon and put my plea to him. He was as interested as I in the experiment, and you see the result. The operations required a period of two years in order to give nature a chance to have the body recuperate in the interim between experiments. As you see me now I am without any parts except those absolutely essential to life. One exception to this however, are my eyes. I did not yet wish to be shut off from the outer world by all of the senses. The artificial internal organs I dare not remove as I do my appendages for they are necessary to my life. The crowning operation of all was a pump replacing my heart. This pump is a simple double valve mechanism which circulates the small amount of blood required for my torso, head and arm. Look here!"

As he spoke he proceeded to reattach the artificial members. After he had again thus assumed semblance to human form he called attention to something David had not noticed before, a flat object lying upon his chest.

"This is the control board," he explained. "With the exception of the right arm I now move my body by electricity. The batteries are concealed within a hollow below the hip of my right leg. Behold in me an artificial man who lives and breathes and has his being with a minimum of mortal flesh! My various parts can be meandered and replaced as you would repair the parts of your automobile."

During Gregory's recital David had not withdrawn his fascinated but horrified eyes from the mechanical man. Invulnerable and almost immortal, this creature was existing as a menace to mankind, a self-made Frankenstein. When he was again complete he stood before David, a triumphant gleam in the eyes which alone, unchanged physically, were

yet scarcely recognizable as Gregory's, for the soul that peered through these windows was transformed.

In the gathering gloom Bell could see the automaton staring at him. He moved slowly toward a window hoping to elude his antagonist by a sudden exit in that direction, but Gregory crept toward him with a clock-like precision in his movements. The doctor noticed that the right hand was kept busy manipulating the control board at his chest. If this were the case, the interloper possessed only one free arm, but little had Bell reckoned on the prowess of that left arm! Like the grip of a vise the metallic fingers clutched at his throat. One thought pervaded his mind. If he could get that right hand away from the control and damage the connections to the various appendages and organs! But he soon realized how futile were his weaponless hands against the invulnerable body of his adversary. Down, down, those relentless claws bore him. The darkness fell about him like a heavy curtain. A throbbing in his temples that sounded like a distant pounding. Then oblivion.

The Thread Snaps

WHEN David Bell regained consciousness he was lying in his bed. The bright sunlight shining through the curtains made delicate traceries across the counterpane. His first thought was that this was heaven by contrast to the events of his last conscious moments. Surely that was an angel hovering above him! No—at least not in the ethereal sense—but an angel nevertheless, for it was Rosalind, her sweet face beaming with love and solicitude.

"Mr. Stevens and I have been watching by your side for hours, David dear," she said as she placed a cool hand upon his brow. "You have him to thank for saving your life, not only at the time of the attack, but during the uncertain hours that have followed."

David turned grateful eyes toward his rescuer.

"Tell me about it, Lucius," he said quietly.

Stevens seated himself in a chair by the bedside and proceeded with this narrative.

"After that demon you called Gregory ordered me from the room, Dr. Bell, I turned over in my mind what had better be done to save you from his vengeance. I thought it advisable to say nothing at the time to Mrs. Bell because I did not wish to alarm her unnecessarily, but I knew that when I forced entrance into the room, it must be with adequate assistance, and within a very short period of time. I made my way to the office as quickly as I could without arousing suspicion. Miss Cullis was at the desk. Knowing I could rely on her natural calmness of demeanor and self-possession, I told her briefly of the danger which threatened you, then I phoned police headquarters. Before ten minutes were over Copeland and Knowles had arrived armed with automatics and crew-bars. I carried an axe. Cautiously we made our way to the door of the operating room and stood without, listening. We heard no sounds of voices and Copeland wanted to force entrance immediately, but I held him in temporary restraint. I wanted to obtain some cue as to conditions on the other side of the door before taking drastic measures. But thanks to Copeland's impatience we broke down the door and saw—I shall

never forget the sight till my dying day—that fiend of hell with his talons gripping your throat. He was evidently somewhat deaf for he heard no motion of our approach. We closed in on him from the rear, but he swung around with such force in that left arm that we all went down like ten-pins. Knowles, as soon as he was on his feet again, struck him several times with the bar, but his efforts were wasted, for he might as well have rained blows upon a stone wall. Copeland aimed for his head in which he knew was encased a mortal brain, but that blow was avoided by the monster's ever active legs and arms. I was reserving my axe for a telling stroke, when it came upon me with sudden clarity of understanding, that the man governed his movements by manipulating the fingers of his right hand upon a place of control at his breast. His right arm and the switch board! These were the vulnerable parts. At last I had found the heel of Achilles!

"While Gregory was occupied with his other two antagonists I dealt a sudden stroke with the axe at his right hand, but missed, the weapon falling heavily upon his chest. My first emotion was disappointment at having missed my mark but in another second I realized that the blow had disabled him. The left arm hung useless at his side, but what prowess it lacked was made up in the increased activity of the legs. He ran, and never have I seen such speed. He would have made Atalanta resemble a snail!

However, three against one put the odds too heavily in our favor. Between lurches and thrusts at the flying figure I managed to convey to the two policemen my discovery in regard to his mortal points, and we soon had his trusty right arm disabled. The rest was comparatively easy. We dismembered him. We did not want to kill him, but it was soon apparent to us that the damage done to the control board would prove fatal. He wanted to speak, but his voice was faint, and stooping I could barely get the words.

"Tell David," he said, "that I've been wrong, dead wrong ever since I was carried off the field in that football game. I had been right at first. Mental perfection does make the physical harmonious, and with the right mental attitude after that accident, I could have risen above the physical handicap. It was not the physical loss of my leg that brought me to this. *It was the mind that allowed it to do so.* Tell David and Rosalind I am sorry for the past, and I wish them much happiness for the future! Those were his last words."

David Bell and his wife looked at each other with tear-dimmed eyes.

Next day the "slender thread" which had held George Gregory to this world was laid in its last resting place, but the soul which had realized and repented of its error, who knows whither it went?

THE END