The

By J. Harold Click

¶ *The doctor looked silly and hastily put his arm behind his back. But Theda made him withdraw it. Surely enough his hand seemed neatly severed at the wrist.*

Dimension Segregator

EVER since Einstein started the talk about the fourth dimension and relativity, there has been little abatement of interest in the subject. For most of us, however, this matter is hardly cleared up by much reading on the subject. On the contrary, it seems that each time a point is definitely cleared up, the next tome on the subject completely disproves your conclusions.

But, in the words of the scientist, who is the hero of this story, "we should learn something first of the two-dimensional world, if we expect to learn anything of the fourth-dimensional world." It seems to us there is much wisdom in that thought. Our new author, apparently agrees with his hero and proceeds to listen attentively to his explanations and watch his demonstrations, all of which is done in layman style.

We suggest you join the author and us.

I HAVE known the late Dr. Thorndyke for over twenty years and have found him to be an unusually truthful man not at all given to exaggeration or misrepresentation. It is true that for a time after the great Bennett University earthquake and fire disaster, in which he almost lost his life, he was considered mentally unbalanced from the effects of a blow on the head. But everyone agrees that he fully recovered and ceased to be troubled by his so-called hallucinations.

Knowing the man as I did, I can't doubt the truth of the marvelous story which he had typewritten and attached to his last will and testament. I, myself, have seen the two-dimensional guinea pig and the strangely distorted bust of Shakespeare; also I can attest to the fact that the brown eye and the green eye of Gyp changed positions about the time of the earthquake. Without further explanation, I will let you have the story just as Dr. Thorndyke wrote it himself, so that you can be your own judge of its probability.

Thorndyke's Story

TO whomever it may concern: Being the only living man who witnessed the demonstrations of the so-called dimension segregator (unless Phil and Theda make their return to the three-dimensional existence) I consider it my duty to leave to posterity all my knowledge of the said machine and a description of the experiments performed with it in my presence.

After repeatedly having tried to convince the world of the actual existence of the machine and its wonderful performances, only to be judged insane, I decided to refrain from discussing the matter further. I worked in secret in the attempt to discover the nature of the wonderful segregating ray but without success.

Now, realizing that my remaining years on earth are but few, I am having this manuscript prepared to leave to posterity, so that, if the ray is rediscovered after my death, the credit may go where it belongs—to Philip Tulane; also that the rediscoverers may use what knowledge I have, in their experiments. I am writing from memory. But though it has been twenty years since the occurrence of the wonderful phenomena described herein, they have been continually in my thoughts, and I have not omitted a single detail of importance.

I WAS an Instructor in the School of Electrical Engineering at Bennett University at Bennettsville, California, and Philip Tulane was an Instructor in higher mathematics. I was ten years older than he, but we grew to be warm friends. Our friendship was not the kind based on social equality or anything like that. Neither of us had time or inclination to mingle in the social life of the campus. We both spent most of our spare time in dabbling in the sciences outside our regular lines. My amateur experiments in biology and astronomy never produced any results, unless it was a lessened efficiency as an electrical engineer. But with Phil it was different. His hobbies were Chemistry and Physics, and he made several notable discoveries in these sciences.

Among his discoveries was the strange substance which I named "Tulanium" in his honor. I don't know whether this substance was like that which has been called Nutronium or not. I do know that it was produced by reducing iron to absolute zero by means of complicated compression refrigeration. This Tulanium was infinitely hard, dense, and very heavy. He explained to me that at the temperature of absolute zero all molecular vibration ceased. He even claimed that the spaces between the atoms and molecules were closed up so that it was an *absolute solid*. I don't know about that, but I do know that it was not affected by heat and

that it seemed to be, as Phil claimed it was, just "dead," so far as vibration or its ability to combine with other elements was concerned. This strange metal was only one of Phil's many discoveries, and I describe it only because it was used in his two-dimension experiments.

Philip Tulane was undoubtedly endowed with one of the greatest scientific brains that I ever knew. He could have made a name for himself in either chemistry or physics if he had been willing to accept some of his flattering offers from various universities. But he preferred to remain an instructor in mathematics at Bennett. And I am sure that Theda was the cause of his preference.

Theda Derioux was as good in her field as Phil was in his. She was interested in hypnotism and psychic phenomena. Not only had she studied and read widely along these lines, but she was born with strange mediumistic and hypnotic powers. Furthermore, she was gifted with the power of premonition. I don't know much about such matters, but Theda was a puzzle even to the psychologists. Whether it was due to a highly developed intuitional sense, or whether it was the "uprush of the subliminal" or some other power not yet understood, I do not know, but Theda did marvelous things in telepathy and mind control without—she declared—knowing how she did them. Outside of her mysterious powers, Theda was a typical specimen of vivacious, charming American girlhood. She got her rather unusual name from her German-French ancestry. She was a perfect Titian blonde and not at all the type usually associated with the so-called occult sciences.

I MUST confess that I was very much in love with Theda. But what chance had I, a bald bachelor of forty-five? I don't mind admitting my love for Theda at this late date, but at the time I kept it well concealed. Nobody could doubt that she and Philip Tulane were made for each other. They were not what you would call twin souls but rather complementary personalities —she with her psychic powers and he with his great scientific mind.

Theda's father, old Dr. Derioux, head of the Psychology Department, was a native Frenchman, and one of the most original characters on the campus. He knew his complexes and behaviourisms, and he had carried on a lot of valuable investigations in spiritualistic fields, with the aid of his daughter's peculiar powers. But, like his daughter, he managed to retain his charming personality, in spite of his great learning, and outside of his work hours he was so full of inconsistencies and unique sense of humor, that he was irresistible.

I doubt if Phil knew the first principles of courting a girl, assuming that he had such intentions. He did not seem to want to be alone with Theda, so he and I got into the habit of calling at the Derioux home at least one evening a week. The four of us had enough common individual interests to make our weekly sessions very enjoyable. We discussed all the sciences and even religion and the destiny of man and such things. True, the discussions of religion and metaphysics were rather in the form of a debate with Theda and the Doctor on one side and Phil and me, both rank materialists at that time, on the other.

Very clearly I remember the night when the idea of segregating the dimensions came up for discussion. The conversation had drifted around to the fourth dimension, a favorite theme with us, and each had a different opinion. As usual, the Doctor, much to Phil's annoyance, upheld the superiority of his own science over what he called the material sciences.

"The fourt' dimension," declared Dr. Derioux, "is not found in ze limited sciences of mat'ematics and physics. Dey must be content to deal wit' t'ree, while ze fourt' comes in my own realm of metaphysics. All matter have lengt', breadt', and t'ickness. Nossing functions in ze fourt' except ze subconscious mind. I will explain further if you weesh."

"You need not take the trouble on my account," rather testily spoke up Tulane. "I am very well content with three. I think it is rather foolish to seek for the fourth until we know something more about the three than we can now conceive of."

"I think so too," agreed Theda. "Everything else goes in threes. Why not dimensions? As for me, I don't believe in the existence of but three on this Earth. And have you ever thought of the expression of the Spiritualists, "the higher plane" where we are supposed to exist after death? Isn't it possible that unknowingly they have expressed the real truth about the next state of existence? What I mean is that the next existence is really a plane existence, an existence in two dimensions. I can believe that with one dimension dropped, we might continue to exist without any real mass. We would be like the actors on a moving picture screen except that we would retain our consciousness. We would be free from all the physical discomforts that go along with a three dimensional existence."

"A very nice play on words, ma cherie," the old Doctor replied in an indulgent manner, "but perfectly absurd from eizer ze viewpoint of physics or philosophy. I have heard ze claim zat a moving picture or a shadow on ze floor were true examples of a plane. But zat is false. Ze objects on ze screen or ze shadow are non-existent in reality and our impression of them is simply formed by the different intensities of light which striking ze retina of ze eye stimulate ze nerve endings so zat dey transmit a message to ze brain which forms a mental image which says: "Moving picture of John Barrymore making love," or "shadow on ze floor."

"That is very good metaphysics," smilingly replied Tulane, but it leads directly to the theory of the idealists, who claim that nothing exists outside of the mind. I am not quite ready to agree that all matter is the creation of the imagination. For the sake of Thorndyke and me, who are mere materialists, let us please confine our discussion of dimensions to the mathematical or physical viewpoint."

"In zat way," objected the Doctor, "you will hav ze advantage of ze argument. But you are my guests; I will agree to ze terms."

"I think Theda deserves more credit than you give her for her 'play on words.'" Tulane went on. "I think that investigations of the possibilities of two dimensions hold more promise than of four. For example the oft discussed possibility of travel through space or into a closed box by means of a little jump in the direction of the fourth dimension. I have investigated most of the theories of the fourth dimension and

have come to the conclusion that, if it exists at all, it may be defined by the word *position;* length, breadth, and thickness—and position being all the necessary qualifications for existence. And that being the case, four dimensional objects are in a sense stationary."

I WAS a firm believer in the Einstein theories and wanted to remind Tulane that position was only relative. But I sensed that he had something else on his mind, so I did not interrupt.

"Now if I wanted to traverse great distances of space or get inside of a closed box without raising the lid," continued Tulane, "rather than seek to use an extra dimension I would discard one of the three that I am now encumbered with."

"But den you would be nossing," exclaimed the Doctor.

"Perhaps so," agreed Phil, "but assuming that I possessed the means of dropping one of my dimensions and becoming a creature having length and breadth but no thickness, I could pass through any known substance with one exception without meeting with any resistance so long as the movement was confined to my own plane. Furthermore, not having any mass, I would not be influenced by gravity or friction. Once given a start I could travel to Venus without applying any additional power on the way. I could penetrate to the center of the earth and find out what it is like. Ah, the possibilities of a two dimensional object are almost unlimited. Why seek for four?"

"Why indeed?" snorted the Doctor. "You might as well seek for four as for two. As long as you confine your thoughts to physical matter and leave out the psychic side, you will have to be content wit' t'ree—no more—no less. But you have aroused my curiosity. You mention a substance that not even your all-powerful plane could penetrate."

Tulane was aroused by the old man's sarcasm and he replied with some spirit:

"I wish to amend my statement. There are *two* substances that are impenetrable by any known means. One is the brain of a psychologist, and the other is the heretofore useless substance that Thorndyke has insisted on calling tulanium."

The situation between the physicist and the psychologist was becoming rather critical. But Theda saved the day by saying:

"You two old fossils cut out the sarcasm and explain, Phil, what you mean by 'heretofore useless'? You seem to insinuate that you have found a use for tulanium. And I have a feeling that it has something to do with a scheme of yours for getting into the two dimensional state so that you can go sailing off to Venus or down into the center of the earth like traveling on a magic carpet. If that is so, I want passage reserved for me on the very first trip."

"Your intuition is almost true," said Tulane. "I don't have a scheme exactly; only part of one. I am really working on a lead that I accidentally came upon while experimenting with X-rays and infra-red and ultra-violet rays. If you three will promise not to betray my secret, I will keep you posted on the progress of my invention of a 'Dimension Segregator.'"

Theda was enthusiastic. I was interested. The old doctor was skeptical. But we all promised to keep the secret, and Phil continued to explain his scheme for projecting himself into the two-dimensional existence, in case he succeeded in perfecting his Segregator.

"If I can perfect this ray that I am working on, it will enable me to segregate one of the dimensions from the other two. Two of the dimensions can be projected on a plane surface, leaving the third behind. Then, by means of a little shove, this projection can be slid off—let us call it a screen—edgewise. Tulanium will, I believe be the substance to give the shove. As it is an *absolute solid,* it will probably be impenetrable, even by an object having no thickness. Once on its way, this true plane, having no gravity pull and meeting with no resistance, will continue on in a straight line through eternity unless means can be found for guiding it back to the screen.

"My invention is still in the embryonic stage, of course, but later I hope I will be able to project myself on a tour of exploration into regions as yet not visited by man."

"But Phil," objected Theda, "how will you ever get back if nothing can stop your outward journey but a barrier of tulanium?"

"Don't worry about that. I have not gone yet, nor do I intend to go until I find means of dropping one of my dimensions. Not even then, unless I can feel reasonably assured of a safe return."

The hour was growing late. So we disbanded for the night after Theda had been promised a hand in the building and operating of the Dimension Segregator. The Doctor was still skeptical. And so was I, though I had great faith in Phil's powers to invent strange machines.

DURING the next few weeks Phil spent all his spare time in the development of his mysterious ray. He finally came to me with the news that it was a success and that it was ready to be installed in a projecting machine. And he wanted me to help in the building of this machine. He explained that what he wanted was a simple housing for the ray tube, light-proof on all sides, except for the opening through which the ray was to be shot. There must be lenses to concentrate the rays on the desired spot and an electrical connection for regulating the light necessary for the functioning of the ray—there must be focusing arrangements, etc. It was to be on the order of a moving picture projector, but it would be of no use without knowledge of the secret of the segregating ray.

This secret remained with Phil. I only knew what I gathered from chance remarks of his.

"It is a combination of rays from radium and light rays of a higher frequency than ultra-violet rays that are separated from the spectrum by means of prisms in the tube," he said. "It resembles in some respects the X-ray. But it has other properties. The radium rays tend to disintegrate matter. But the other rays modify this tendency so that instead of being disintegrated, an object in the field of the combined rays simply has its dimensions separated or segregated without in any way suffering permanent disintegration."

This was all as clear as mud to me. Perhaps someone who reads this will know enough about such matters to enable him to discover the secret of the segregating ray.

I built the housing for him, and we took it into the dark room for the installation of the ray and the finishing touches. Tulane assured me that if a particle of light reached the tube, "the dimensions would be shot out of everything that the rays came in contact with." He had made it in the dark, and we assembled the apparatus in the dark, working by touch alone. The presence of the radium made this a ticklish operation.

We finally got the machine completed, however, and set it up in a long room over Phil's laboratory. It was placed at one end of the room with the screen at the other, and in between was placed a platform on which objects to be projected were to be placed. The screen was made of a dense alloy of Phil's manufacture. It had been compressed and polished until it was, I believe, the nearest approach to a true plane surface that has ever been achieved. Of course, if examined under a powerful microscope, it would have shown irregularities of surface. Tulane was doubtful about the screen, but later it proved its ability to serve as a plane surface even though it was not strictly one. It was about seven feet square.

The platform and the focus of the ray had to be adjusted so that the field of the beam barely cleared the surface of the platform and covered almost the entire surface of the screen. At the first demonstration, which I witnessed, I found out why this was. Phil later confessed to me that he slyly tested out the machine alone, so as not to risk the chance of being ridiculed by Dr. Derioux in case it proved to be a failure.

AT the first public demonstration, Theda, the Doctor, Tulane, and I were present. We experimented with inanimate objects only this time.

Tulane operated the projector and explained as he proceeded:

"I will now place this tin can on the platform, turn the current on, and push forward the lever releasing the energy of the ray tube. You perceive the projection of the can on the screen while the can itself has completely vanished. What has really happened is that the peculiar energy from the segregating rays has separated two of the dimensions from the third. These two are stopped by the screen while the third remains on the platform."

"Humph!" snorted the Doctor, "dere is nothing on ze platform."

"Just a minute, Doctor," calmly replied Tulane. "The mere fact that there is no light received on the retina of your eye, which creates an impression on your brain, which says: 'tin can on the platform,' does not necessarily mean that there is nothing there. I will prove to you that there is something there; in fact, the greater part of the tin can remains with the single dimension.

"I will now reverse the lever which releases the effect of the ray on the tin can. You see, the two dimensions have returned."

It was indeed true. The can was removed, and one by one and several at a time, other objects were put through the same process.

"But what is ze benefit of all zis?" demanded the Doctor. "I do not believe it is a t'ing but some of T'eda's sleight-of-hand or a simple exhibition of hypnotism."

Ignoring the skepticism of Dr. Derioux, Phil continued:

"The most valuable discovery I have made so far is the answer to the question I have been asking myself: What happens to the weight of the three dimensional objects when the dimensions are separated? I reasoned that a two dimensional object could have no weight, being without thickness. And I also reasoned that a one-dimensional object could have no weight. Multiply nothing by nothing and you get nothing. Then where does the weight come from? I was wrong about a one-dimensional object being without weight. I have found that the weight—the mass—the property of being affected by the pull of gravity, is inseparably bound up with one of the dimensions. Which one I don't know, for up to the present time no means has been known of distinguishing between length, breadth and thickness, except the arbitrary custom of calling the longest dimension the 'length,' the next longest, the 'breadth,' and the shortest, the 'thickness.'

"What I do know is that the dimension that remains behind when the other two are projected, retains the attraction for other matter which is responsible for the pull of gravity. This dimension which is linked up with mass I shall hereafter call the *third*, and I hope in my future experiments to determine which properties are linked up with the other two. I shall then give them distinguishing names."

A cube of wood was then undergoing projection.

"You can learn for yourselves that the weight of this cube of wood remains on the platform, even though it is invisible. Not only that, you can actually feel the third dimension with your hands."

TULANE pulled the lever into "neutral." The image remained on the screen. The block was still invisible. But the power of the rays was prevented from any further projection of objects which came into their field. One by one we felt the third dimension of the block and even lifted it between our hands. It appeared to retain the normal weight. It was a strange experience. You could pass your hand through the spot where the cube had been in a vertical direction or from side to side and encounter nothing. But when you brought your hands together in the direction of the projection, when they were about as far apart as the thickness of the cube, they would come to a stop. And by pressing your hands against the cube and lifting, you could actually raise the block or rather the third dimension of it, and feel the weight!! It is not much wonder that people thought me insane when I related these experiences. Yet, it was actual fact.

We all moved away from the platform, and Phil pulled the lever into "reverse." And we got another surprise. Instead of the cube, we now saw a most peculiar form. It would have to be called a cube, but there was not a right angle in it. It looked like the attempt of a lunatic to form a cube. Even Phil showed a look of blank amazement. Then he laughed.

"Now you see some of the possibilities of my machine," he said turning to Dr. Derioux, "I shall produce an entirely new set of geometrical figures, and perhaps develop a new school of futurist sculpture by subjecting old-style statuary to this process."

"But what in the world happened?" asked Theda.

"I will let you figure that out for yourself," enigmatically replied Phil.

I guessed what had happened but I don't believe Theda or the Doctor did. Phil placed the new geometrical form on a shelf and placed a little plaster bust of Shakespeare on the platform and turned on the ray. Dr. Derioux must have had a curiosity to feel the "third dimension of Shakespeare." He made a move toward the platform and reached toward the position of the invisible bust. Tulane hastily jerked the switch into neutral, just as the hand of Dr. Derioux had entered the field of the ray. The image of the hand appeared on the screen beside that of the bust, at one extreme edge of the screen.

The Doctor looked silly and hastily put his arm behind his back. But Theda made him withdraw. And surely enough his hand seemed neatly severed at the wrist. There was no blood, and he declared he felt no pain. Theda and I were filled with consternation, and I thought Phil's bit of wit was quite out of order.

Another possibility of my machine," he said, "painless surgery without anaesthetics."

He was evidently perfectly confident of his ability to restore the hand, but at the next turn of events he was the most disconcerted person in the group. At this very instant the Midnight Express passed on the track not a hundred yards from the building. The whole room shook with the vibration and we saw the projection of Dr. Derioux's hand tremble slightly on the screen and slowly float off the edge and disappear.

"Oh!" wailed Theda, "it's gone out into space, and it will keep right on through eternity unless it meets up with a barrier of tulanium somewhere."

"Which is quite improbable," calmly remarked the Doctor.

Phil was speechless. Absent-mindedly he appeared to give the third dimension of the Shakespeare cast a little twist and then pulled the lever re-aggregating the dimensions. What appeared was indeed a wildly futuristic-looking piece of sculpture. Still apparently much disturbed, Phil placed it on the shelf and then found his voice to declare:

"The wandering away of the two dimensions of your hand was due to my carelessness in not surrounding the screen with a rim of tulanium, as I intended to do before performing any experiments. It will be necessary for me to project myself into the two-dimensional existence in order to restore your hand. To-morrow night I shall make the attempt, if it costs me my life."

"Nonsense," shouted the Doctor. "You will do nossing of the sort. I have enjoy ze séance very much indeed. I t'ink T'eda and I had better be going as it is late." Evidently he still thought he was the victim of some sleight-of-hand trick performed by Theda and Tulane.

I REMAINED with Phil after the others had left. He was evidently much disturbed about the Doctor's hand.

"I haven't the slightest idea of how to proceed to get it back," he told me. "It was simply criminal negligence on my part to have delayed surrounding the screen with tulanium. I intended to do that before I projected any objects of value whose return to the three-dimensional state was imperative. I must do some thinking in order to figure out a way to project myself with at least a 50-50 chance of returning."

"Surely," I protested, "you are not serious in your determination to allow your dimensions to be segregated and sent wandering in space. The loss of a hand is a small matter compared to the risk of losing one of the world's most able scientists."

"Thanks for the compliment," he replied. "I don't intend to do anything rash. I promise you that I will remain in possession of all my dimensions until I experiment further and find a way of controlling the wanderings of the planes in space, so that they can be brought back to the screen. But it has been my intention from the first to use the segregator for the purpose of exploring space and the interior of the earth."

"But," I protested, "even if you can enter the two-dimensional state and wander off and return, you have no reason to believe that you will retain the faculties of perception without which your explorations would be valueless."

"Yes, I do have reason to believe it. I have a theory that, since the property of mass is linked up with the third dimension, the other properties are linked up with the other two. I have made a guess that sensitiveness to outside stimulations is attached to one of the dimensions, and that consciousness and the ability to think are associated with the other. I believe that I will retain full possession of my powers of observation and understanding."

"But even if you do," I argued, "what you see will be only a sort of cross section of what you pass through and of very doubtful value to science."

"Of course," he admitted, "I don't know exactly what will happen. But I have hopes that I will at least be receptive to the light rays that are perpendicular to my plane. But we will test out my theories when we have found means of directing our movements while in the plane existence. I want you to help me to-morrow afternoon to put a rim of tulanium around the screen. We will at least prevent anything else slipping off out of our control."

I later learned about the Doctor's behaviour in regard to his hand. He insisted that he was the victim of some prank, some hallucination brought about by Theda's hypnotic powers. But finding that his hand did not return with the dawn next morning, he had become alarmed and had gone to the hospital and called for the head surgeon, a friend of his.

"I desire you to examine my hand," he said, "it feels rather peculiar. It may be necessaire to be amputated."

I can picture the astonishment of the surgeon as he exclaimed:

"Why man you must be joking or crazy!! It is already amputated, and a very neat job it is. How in the world did it happen?"

"Ah, *M'sieur le Doctaire,* you jest with me. The hand is not gone. It is merely invisible. I will permit you to feel it. No, not that dimension, but in a transverse direction—dere, zat is ze way."

The surgeon was dumbfounded, and Dr. Derioux was thoroughly enjoying this experiment in psychology in a new field. He said:

"Ze case den is beyond ze scope of your branch of

science? I will confess. Ze hand was removed by a new method of painless surgery wit'out ze use of anast'etics. If you can do nothing for me I will have it restored by the same means by which it was dimensionally dissociated."

"I-I th-think we both must be crazy or drunk," stammered the surgeon. "But I can at least have the stub dressed to prevent infection and to hasten healing."

"*Non,* it will not be necessaire. But please do not mention this little visit to anyone until I have consulted further with ze painless surgeon who has charge of ze case."

"You need not worry about that. I think too much of my reputation for coolheadedness to let anyone know that I have been made the victim of such a delusion."

Phil and I worked on the projecting apparatus all afternoon. We surrounded the screen on three sides with a slight rim of tulanium, and on the fourth side arranged another rim of the same material which could be removed at will by a lever. We also arranged a lever attachment to give the screen a slight jar—"to slide the projection off the screen"—Phil explained. We also substituted a new circular platform, which could be rotated, and marked it off into degrees so that the amount of rotation could be determined.

"Now if I can have a conference with Theda," said Tulane, "I think I will be ready to step off into the two-dimensional existence and return. I think I can make the outward trip, but I will have to depend on Theda to bring me back."

THE second demonstration was even more amazing than the first. The same four were present as before, but Tulane had brought along several rabbits and guinea pigs, and Theda was accompanied by her pet fox-terrier, Gyp. This Gyp was a noted character on the campus. Besides being trained to do several tricks, he was rather famous on account of being the favorite subject for Theda's animal hypnotic experiments. Another distinction was his unusual coloring. He was pure white except for his right front foot, which was black; his right eye was brown, while his left was a pale green.

Tulane assumed his class-room manner and commenced his explanation of the program for the night:

"This evening we are going to experiment with the projection into two-dimensional existence of animate objects with and without psychic control. First guinea pigs and rabbits, then dogs; and if we find that these animals can be sent wandering in the flat and brought safely back to the three dimensional form, we will continue the experiments with the species *Homo-Sapiens Tulanii.* First a guinea pig, Thorndyke, if you please."

The guinea pig was placed in position and projected. The movable rim of tulanium was adjusted so that one edge of the screen was open. The lever which was to jar the screen was operated. The image of the guinea pig moved aimlessly back and forth across the screen, came in contact with the fixed rim of tulanium and was immediately pushed back across the screen and off the edge.

"Where do you suppose he has gone?" inquired Theda.

"Oh, he has probably gone to seek for the Doctor's hand," lightly replied Tulane.

"Phil, I think you are cruel. I shall never forgive you unless the hand is restored."

"I was only jesting," explained Tulane. "The guinea pig is gone from us forever unless some one goes after him or he happens to drift back accidentally. I have no means of knowing whether the projections keep on moving in a straight line or whether they move around in all directions in their own plane. Thorndyke, please remove the third dimension of the guinea pig and place it on the shelf with the other specimens."

I had no sooner obeyed his command than the image of the guinea pig came drifting back upon the screen. Tulane hastily jerked the lever into reverse and the two dimensions of the guinea pig came back to the platform, but being unable to find the third where it had been left, had to be content to remain in the flat. You may think I am a liar—but this is one of the miracles performed by the Segregator for which the evidence is preserved. When Tulane pulled the reverse lever, there appeared on the platform what looked like a tissue paper cut-out picture of a guinea pig standing upright. I attempted to pick it up edgewise between my hands but it passed right through both hands—proving one of Phil's theories that a two-dimensional object could penetrate any known substance without resistance. I succeeded in picking it up by pressing both hands firmly together against its sides, but still it had a tendency to slide between my hands. Moving it about was as hard as trying to carry around a drop of mercury on a slab of glass. But I finally managed it, and next day Phil and I mounted it on a slab of aluminum and surrounded it with an outline of tulanium. He presented it to me, and it is still in existence.

BUT to return to the experiments. Several more guinea pigs and rabbits were projected, but as none of them returned to the screen after being slid off, we concluded that the return of the first one was a mere accident.

Tulane turned to the Doctor and said:

"Dr. Derioux, I regret to have to confess that the 'material science' of physics is unable to solve the problem of controlling the movements of two dimensional objects. I shall, therefore, have to invade your field and try psychic control.

"Theda, if you will prepare the subject, we will see what can be done."

Theda placed one of the remaining rabbits on the platform, and after stroking it gently and talking to it in a soothing tone, drew back and said she believed it was under her control. Tulane pushed the lever and the projection of the rabbit appeared on the screen.

"Now, Theda, see what you can do in motivating the rabbit," he whispered.

Theda seemed to concentrate on the rabbit. She did not have to speak to her subjects. She used purely mental control. The rabbit circled the screen. It did not just slide around. It hopped!! It came to a stop for a moment and then went hopping rapidly off the screen. Presently it returned in the same way. But to make sure, Theda sent it off and on a number of times and also made it stand on its hind legs and wiggle its ears. She then announced that she was satisfied

with her control, and when the reverse lever was pulled, the rabbit was again on the platform, apparently asleep. Theda clapped her hands, and he jumped down of his own accord and went hopping off to the corner of the room, apparently none the worse for his experience.

"Fine work, Theda," exclaimed Phil. "I think it will be perfectly safe to venture into the two-dimensional existence under your control.

"By the way, Dr. Derioux, you might ask the rabbit if he saw anything of your hand while he was gone."

Dr. Derioux ignored Phil's inanity. He was so highly elated over the fact that hypnotism had been necessary for the traversing of two-dimensional space that he could afford a little indulgence.

"Now," said Phil, "shall Gyp and I toss a coin to see which is to have the privilege of the next trip? Theda, I will leave it up to you. If you think Gyp is too valuable to risk, I will excuse him and go myself."

Theda looked hurt and replied very seriously:

"Gyp at least has sense enough to know how much he is appreciated. If I was not sure I could bring him back I would let you go. But I want him to have the experience, so he'll be next."

Phil turned very red under Theda's thrust, but he assumed a nonchalant air and requested Theda to prepare the subject. Gyp was easily hypnotized and was made to perform his tricks on the screen and go off and return several times.

"I want to lift his third dimension," requested Theda, "and see if it weighs as much as it ought to."

So the lever was put in neutral, and Theda, evidently with effort, raised the third dimension of Gyp and declared that he was fully as heavy as ever.

Tulane reversed the power, and Dr. Derioux gave one glance at the platform and gasped:

"Mon Dieu! Tulane, what have you done to T'eda's dog? He looks like he might have picked up another dimension while he was gone!"

HE DID look that way for a fact, for instead of a normal fox-terrier on the platform, there was a strange object that had but slight resemblance to a dog—and yet it was recognizable as such. It resembled more than anything else an "Impression of a Dog" as it might be given by one of the extreme cubist artists, whose works I have often wondered at. Tulane was amused, but Theda was filled with consternation.

"Poor little Gyp!" she cried. "He is ruined. Oh, Phil, what can we do?"

"I think," declared Phil, "that he is quite an improvement. However, if you don't like him, I dare say that you could sell him to a 'zoo' for a fortune, as a new species of animal."

But noticing that Theda was on the point of tears, he hastened to reassure her:

"Don't be alarmed. You shall have your dog back just as he was before. Thorndyke, will you please manipulate the lever while I revolve the platform?"

I projected the dog on the screen again, and this time it was the distorted image that appeared. Phil revolved the platform a few degrees and the normal Gyp was again on the screen. But unable to resist the temptation to have some fun, he continued to revolve the platform. The screen image became more and more distorted until a ninety degree revolution had been made. At that point the image disappeared momentarily to reappear at once. It became less distorted as the revolution continued, until the platform had been turned 180 degrees. At that point the image appeared normal, and I pulled the reverse.

Gyp was again on the platform. Theda joyfully sprang on him, frightening him out of his spell. Snatching him up in her arms, she began fondling him and examining him to see if he was all right. Being satisfied, she turned to Phil and said:

"Now aren't you glad that I let Gyp go instead of you? How would you like to be twisted all out of shape as he was?"

"I would be only too glad to undergo the experience if I could be rewarded on my restoration with as much affection as you are bestowing on Gyp."

It was Theda's turn to blush now. She looked confused and said to Tulane:

"Stop being silly and tell us what made him look so funny the first time."

Instead of explaining, Phil suggested that Theda examine the dog's feet and eyes. Theda's two blue orbs opened wide with amazement as she hastily gave Gyp another inspection and saw that it was now his left foot that was black instead of his right, and his brown and green eyes had reversed positions!

Tulane explained what had happened as follows:

"The same thing happened to Gyp that happened to the cube in the first demonstration. When Theda picked up his third dimension, she set it back down at a different angle from its original position. Then, when we brought his dimensions together again, one of them was at an odd angle to the other two, producing the bizarre futurist looking animal that we saw. All that was necessary to restore the normal angle of the dimensions was to project him again and revolve the

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third dimension to its original position. But for the sake of experiment I continued to revolve the platform producing the peculiar kaleidoscopic effect you witnessed on the screen. You noticed that at the 90 degree point the image disappeared. That phenomenon needs further investigation. I only know that two of the dimensions coincided at that point. Some very interesting possibilities to that.

"The maximum distortion was reached when the third dimension was at a 45 degree angle to the other two, while, when it was completely reversed, there was no distortion. You can see that Gyp is exactly as he was before, except that his right and left sides are transposed like the image in a mirror. I don't think it will cause him any inconvenience unless it makes him left-handed or makes him see things reversed—mirror vision I believe the psychologists call it. However, if Theda wishes it, I can easily remedy that."

"No," Theda decided. "I think it will be fun to have him this way for a while. If it causes him any inconvenience we can re-reverse him later."

"Well, so much for that," said Tulane. "The experiments so far have been only the preliminaries to the most interesting and valuable phase of dimension segregation—the investigation of hitherto unexplored regions. I am now ready to make the venture in person."

"Mon Dieu!" exclaimed the Doctor, glancing at his watch, "it is 1:30 A. M. We must postpone ze grande adventure until anuzzer occasion."

"But," objected Phil, "I am anxious to return the missing dimension of your hand if it can possibly be found."

"Dere is no hurry about zat," affirmed the Doctor. "I have been able to get along very nicely without it. I have disprove ze t'eory zat a Frenchman would be dumb if deprived of ze use of his hands."

We said good night, but for me there was little rest that night. In my dreams hideous creatures appeared with their dimensions all tangled up, and I chased elusive guinea pigs-in-the-flat who slipped through my fingers and passed at will through my body. And when the day finally came it was some time before my mind was able to discriminate between what I had really seen the night before and what had been part of my nightmares.

* * *

WE all needed a rest after the great nervous strain of the two previous nights, so we unanimously agreed to postpone the great adventure until Saturday night following.

On that night we met promptly at 8 o'clock, and Tulane took charge of the program and proceeded as if lecturing to one of his classes:

"There are," he said, "many interesting possibilities of investigation with our segregating ray without the necessity of projecting myself into two-dimensional existence. For instance, by simply repeating the operation, we can reduce an object to one dimension and find out the properties of the first, second, and third. And by going another step we can even do away with dimension altogether. Of course, that is as yet inconceivable. By another method of procedure, we should be able to establish the existence or non-existence of the famous 'fourth dimension.' A new science of solid geometry can be based on the forms produced by altering the angle of incidence of the dimensions, just as we did with Gyp, with Shakespeare and with the wooden cube. There are many other fields of investigation. But that can come later. I am growing impatient to be off on the 'grande adventure,' and if Theda is ready to cast a spell on me and use her 'personal magnetism' to guide me and bring me back again, I will mount the platform.

"I have not the slightest doubt of my safe return, but realizing the value to science of my chance discovery, the segregating ray, I have carefully written down the formulæ and directions for its manufacture. I have also written down some of my theories as well as a complete report of what we have accomplished. I intend to put the papers in a safer place later, but at present they are in the upper left-hand drawer of my office desk. Thorndyke, I will give you the key. You will also find a properly executed document transferring to you three equal shares in the ownership of the invention and all profits that may result from its exploitation in case of my demise in either the three- or the two-dimensional existence."

Then to Theda he said: "All right, hypnotizer, do your act."

But she was evidently much affected by Phil's directions about what was to be done in case of his failure to return, and she absolutely refused to have anything to do with projection. Phil argued and pleaded and finally declared his intention of making the venture without psychic control. Then she grew more alarmed than ever and stated simply:

"I am going with you."

The old Doctor snorted and fumed. "Nonsense! Impractical, absurd, ridiculous!" he shouted. "How in ze world can you use hypnotic power to guide Phil while you are yourself in ze two dimension? Explain me zat if you can."

Theda smiled calmly and said: "I don't know how I know it. But I do know that I can guide Phil much better if I go along than if I remain behind."

"Nevaire have I seen such a child!" complained the Doctor. "You are ze despair of my existence. Your mind is incapable of being psycho-analyzed. Whenever you say you know wit'out knowing how you know, I have learned from long experience to submit to your inanities. I will say no more. I t'ink perhaps you belong more in ze two dimension dan in de t'ree." The old man calmed down and his voice took on a pathetic note of tenderness as he continued: "But T'eda, you must employ ze extremity of caution. Your old fazzer could not live if anyzing happened to you."

THERE were tears in Theda's eyes as she assured her fond father that he need have no fears. But I felt strangely sick at heart at the all too plain evidence that Theda would rather spend eternity in the two-dimensional state with Tulane than risk being permanently separated from him.

Theda hynotized Phil and appeared to go into a partial trance herself. I manipulated the levers and they disappeared. Their projections still in the hypnotic state appeared on the screen and presently appeared to awake and arise. Waving goodby they slipped off the screen. From the time they left until

their return Dr. Derioux remained in a state of mental agitation. They soon reappeared on the screen but were gone again before I could reverse the power.

The minutes grew into hours, and I felt ready for a mental collapse under the strain of watching the screen and listening to Dr. Derioux's ravings. He was almost a maniac before the image of Theda and Phil appeared again on the screen and assumed a stationary position. I jerked the lever, and there they were back on the platform, apparently fast asleep. Theda came out of the trance without assistance and awoke Phil by a gentle pat. Without waiting to be questioned, she began at once, with eyes shining, to relate her experiences.

"Oh, it was wonderful!" she declared. "I am more than ever convinced that the higher plane of existence after this earthly life is in a two-dimensional world. I can't explain how it feels. But I seemed to be wandering around like a disembodied spirit without weight or any feeling of solidity. I had no trouble in guiding Phil and myself. I simply willed to be at a certain place, and lo and behold, I was there."

"But where did you go? And what did you see?" I interrupted to inquire.

"Yes, where *did* we go? And what did we see?" answered Phil, evidently in a very ill humor. "We went to that platform, and we saw nothing. You three bright ones must think I am a greater simpleton than I really am, not to be able to figure out that all that happened was that Theda put me to sleep and kept me asleep while you three planned out your little comedy. Theda, I did not think you were capable of practicing such deception for the mere sake of preventing me from risking the very slight chance of not being able to return. But if you will not allow me to make the trip into two-dimensional existence under your control, I will get some other assistants and go on my own hook."

Theda was nonplussed, and her enthusiasm over her recent experience died a sudden death. But for only an instant. With a soft laugh she declared:

"It is I who am the simpleton. Why of course your conscious mind would retain no memory of the experiences you went through while in the hypnotic condition. The only way you can find out what you saw is for me to hypnotize you again and make your subconscious mind dictate while some one writes."

"A lot of good it will do me," retorted Phil, "to have some one else tell me what I saw and experienced. It won't do anyone any good to enter the two-dimension existence, except for the purpose of making technical observations of a scientific nature with his conscious mind."

"Oh, don't be disheartened," pleaded Theda. "Perhaps it will be possible to control your movements while you are in a semi-hypnotized condition so that you will be able to remember what you see."

But Phil was only partially convinced that he had not been duped, and he was in rather bad humor when we parted for the night.

The next afternoon Theda actually did hypnotize Phil and she made him tell all he had seen and felt while he was in the two-dimensional state. Dr. Derioux copied it all down, and it was filed with the other papers in the upper left-hand drawer of Phil's desk. Unfortunately I was not present at the time and never had an opportunity of seeing the paper. All I ever learned about what actually took place in the two-dimensional world was gathered from the few remarks that Theda made.

THE fourth demonstration was a brilliant success, although it was a nerve-racking experience for me and the Doctor. Theda partially hypnotized Phil and found that he could be controlled and still have a perfect memory of what happened to him. She insisted on going with him again. So in their trance-like state they were projected and left the screen. In about ten minutes they reappeared on the screen, and Theda held what appeared to be a human hand.

"Ah!" exclaimed the Doctor, "ze prodigal has returned. It is my long lost hand which now is found. Pull ze reverse lever, Meestaire T'orndyke, zat it may be restored so dat I can fall upon his neck and embrace heem."

I was about to comply, but on second thought realized that I had better think what should be done in this case. It was a brain-twister. If Theda and Phil would withdraw from the screen and leave the hand, I might seat the Doctor on the platform and bring back his hand. But suppose the third dimension of his hand was not in the same position as it had been at the time of the accidental projection. Then his hand would be like Gyp—distorted. In that case I could project the Doctor and orientate the platform. But in getting his hand back to normal, all the rest of his body would become distorted.

I explained the problem to Dr. Derioux, and after much argument we were about to give it up. Then the greatest marvel of all the marvelous events took place. Theda and Phil on the screen were apparently laughing at our dilemma. I was much annoyed and was about to bring them back to solve the problem for us. Phil seemed to read my mind and held up a restraining hand, and began to engage in a sort of pantomime for my benefit. He pointed to Dr. Derioux and to the platform. The Doctor mounted the platform, taking care to get on the extreme edge so as not to disturb the third dimensions of Theda and Phil. I was about to project him, when Phil shook his head and pointed to Theda.

Then, would you believe it, Theda, in her two-dimensional form, looked directly at the Doctor with a peculiar look of concentration in her eyes, and he promptly became unconscious. She actually hypnotized him from the two-dimensional world. This proved that full powers of mind were retained and contact kept with the three-dimensional world.

I shot him on the screen, and then had the pleasure of seeing a pretty little screen play. The Doctor stood at attention while Theda very formally approached with the hand. He extended his wrist, and Theda attached the hand, testing it to see if it fitted. She then kissed him on both cheeks. The Doctor saluted with the restored hand, and Phil approached and gave it a vigorous shake. They then seemed ready to be brought back, and I pulled the lever and brought them back and roused them out of their trances.

Dr. Derioux was delighted and jumped around feeling of his hand and making gestures with it, and repeating over and over that he must go and show it to the surgeon. And when I asked how it felt to be projected, he replied:

"I felt nossing. I simply went to sleep, and when I awoke, my hand which was lost had returned. Ah! let us kill ze fatted calf and have feasting and rejoicing! But I was about to forget. Mr. Tulane, where did you find heem—ze hand?"

"Oh, it hadn't wandered far," drily replied Phil. "I found it on the upper plane, trying, by means of the French language of gestures, to explain to a class of two-dimensional sophomores the difference between ego-ism and egotism."

"Ah, indeed?" retorted the Doctor. "I have no doubt zat ze mind of my sophomore class of psychology is of ze two dimension, what you call ze two-by-four. But as for ze mat'ematician and ze physicist—his mind is in ze one dimension. It have no breadth, no length. It is only in thickness of ze skull dat it is a grand success."

After we had laughed at the Doctor's wit, Phil and Theda declared their intention of making another trip of discovery. Phil had been able to observe for himself this time, and had made some revolutionary discoveries concerning the composition of the center of the earth. He declared that he retained all sensory powers and even acquired the ability to see into the dark interior of solid objects. And he also was able to remember what he saw and felt. Transportation from place to place and the passing of time were almost instantaneous, apparently, because they had been through the Earth and back in a few minutes. He even asserted that he could bring back objects, which of course would be in the two-dimensional form like the guinea pig. These cross-sections, though they could not be chemically analyzed, would be of value to science. As to where and how he had recovered the Doctor's hand he refused to say any more at present. He said that he was anxious to traverse the distance to Venus and probably investigate that alleged upper plane of Theda's. So he insisted upon being projected immediately.

We went through the usual procedure, and they were off. Dr. Derioux and I settled down to wait.

The minutes passed rapidly while we conjectured about the mysterious return of the hand. But the time began to drag as Theda and Tulane did not reappear on the screen. The Doctor became worried and looked at his watch every five minutes. It was the most miserable night I ever spent. My companion went to sleep in his chair about one A. M., and the dawn was breaking when I awoke with a start from a little nap to see Theda and Phil beckoning from the screen.

When they were brought back and the Doctor was awakened, he flew into a veritable rage.

"T'eda, whatever am I do do wit' you? You will yet cause my destruction. I am disgrace! I am mortify! Here you calmly return at daybreak after being out all night wiz a man who is not your husband. It is unconventional, it is scandalous! What would your *mamman* say if she were alive?"

"Father, don't be silly," Theda reasoned with the old man. "These things don't count in the two-dimensional world. Everything is beautiful and pure, and the physical side of our natures is left behind. Love is on a higher plane than it is in this world. And besides, Phil and I have been united in the two-dimensional world, and if you wish it, for the sake of propriety, we will be married in the three-dimensional world."

"You have been united in the two dimension? Magnificent! And I suppose the ceremony was performed by one of those Unitarian ministers who deny the t'ree dimensions of God? Yes? Well, it is ze only ceremony zat will be performed unless you proceed in ze American manner, without ze consent of ze parent."

"Dr. Derioux, I take this opportunity to request the honor of your daughter's hand in marriage," Phil interrupted very formally.

"I am surprise, I am amaze. I can not. She is my only one. Mr. Tulane, it is a great honor. But I must think. I am ze old fool! Ah, I have it. It is ze grande romance. Ze old man lose his right hand—he offer a great reward for its return. Ze young Knight come out of ze West. He sail out into ze unknown. At ze risk of his life he recovers ze hand and by his magic power restores it to ze t'ree dimension. Ze old man is filled wit' gratitude. He say: 'My son, as a reward for your brave deed I will give you ze hand of my only daughter.' It is done; you have my consent."

"And my congratulations," I interposed. And thus happily ended the fourth demonstration. Theda and Phil were quietly married that afternoon, and seriously declared their intention of spending their honeymoon in the two-dimensional world.

* * *

AFTER losing a whole night's sleep and witnessing a marriage on top of that, we were all rather unstrung. But Theda and Phil just wouldn't be denied one little trip into the two-dimensional world. So the next and final demonstration of the Segregator took place on the very next night, April 22nd, a date made memorable by the occurrence of the Great Bennett Earthquake and fire disaster.

"We won't be gone long," Phil promised. "We are thinking of settling as pioneers in the new world we have discovered, and we just want to pick out a spot for building the floor plan of our two-by-four cabin."

"Bettaire make it larger," laughed the Doctor, "so as to have room for ze little one-by-one or perhaps two-by-two Phils and T'edas that are sure to arrive."

Theda very solemnly remarked: "Phil, I don't think we had better go to-night. I am having one of my premonitions. I seem to have the feeling that something terrible is going to happen to-night. I feel as if the projection machine is going to be destroyed or something like that."

"I hope you are wrong," said Phil. "But anyhow, if anything is going to happen, I will feel safer in the two-dimensional state than in the three. Won't you?"

A strange look came into Theda's eyes, and I firmly believe that she knew at the time that she and Phil would never return to our world if they were projected into two-dimensional existence. But she made the choice. She merely said: "I am not afraid. We will go."

They were projected, and lingering on the screen only long enough to wave farewell, were off on their strange honeymoon, while Doctor and I tried to make ourselves comfortable. They had been gone scarce ten minutes when the windows began to rattle and the floor to tremble slightly under our feet. Gyp, who was present, growled uneasily.

"What train passes at dis hour?" nervously inquired the Doctor.

I glanced out of the window and replied: "There is no train. It must be a slight earth tremor."

"Let us hope dat it will be slight," said the Doctor. "I fear zat T'eda's premonition was correct. Her premonitions always are correct."

The second shock came, stronger than the first. The screen shook, and the platform slid a slight distance across the floor. The tremor died away, to be followed by the third—this time quite severe.

"Mon Dieu!" fairly shouted the Doctor. "What will happen if ze machine is demolished and T'eda away out in ze two dimension wit' no way of getting back. I should have forbidden dis mad adventure to-night. T'eda's premonitions never fail."

At this moment Theda appeared on the screen alone. There were tears in her eyes, and she was bidding us farewell. Dr. Derioux hastily pulled the reverse lever. But the platform had been disturbed, and the Theda that appeared, though recognizable and still beautiful, was dimensionally altered and distorted. Dr. Derioux pushed forward the lever and yelled out:

"Rotate ze platform!! Rotate ze platform to ze proper degree. Dere is no time to waste! !"

The earth trembling had ceased, and I took my time, hoping that Phil would reappear. I had just got Theda's image back to normal on the screen, when she glided off to her husband, waving us a last farewell. Then came the severest shock. Dr. Derioux was hurled to the floor, and the lights went off.

"All is lost," wailed the Doctor. But I hoped that was not true. The shock was weakening, and I hoped that I could get a light and some storage batteries to attach to the machine. I started feeling my way along. I had reached the hall when the floor seemed to rise about three feet and I felt myself falling through space. I had been thrown bodily down the stairway.

Stunned and bruised, I tried to collect my thoughts. I had a vague idea that there was some purpose that I had started to carry out. Oh, yes—the storage batteries. But no, it was too late for that now. The machine was probably a hopeless wreck. There was some other thought deep in my subliminal mind that was struggling for consciousness.

The smell of smoke brought me to my senses. Fire had broken out in the building. What was it that I must do? Oh, yes, the upper-left-hand drawer of Phil's desk. I must make a desperate effort to reach it and save the papers before everything was lost. I dragged myself along, and must have reached the outside of the desk, when some falling object hit me on the head. Consciousness left me.

* * *

I AWOKE with a throbbing pain in my head. And my first thought was for the papers. I made an attempt to crawl on toward the upper-left-hand drawer but was restrained by the strong arms of a Red-cross nurse who held me on the cot and said:

"You must lie still. Don't worry about the papers."

I settled back and tried to connect things. I saw that I was in what appeared to be an emergency hospital. Then I remembered the earthquake and fire, and I realized where I was and why I was there. Seeing the surgeon approaching, I rose up and asked him what had become of Dr. Derioux. He replied:

"I regret to say that he perished in the fire that destroyed most of the University buildings after the earthquake."

"And Theda and Phil—are they still in the second dimension?"

"Yes, they were lost, too." He looked at me queerly and turned to the nurse and said: "Better keep the patient quiet. He seems to be delirious still."

When the fever had gone and I was allowed to talk as much as I pleased, I found that there had been a severe earthquake that had demolished most of the University buildings. The shock, I learned, was followed by a fire which had totally destroyed, with the other buildings, Phil's laboratory office and the room where our demonstrations had been carried on. About a hundred lives were lost at Bennettsville, and the night watchman had betrayed the fact that Dr. Derioux and his daughter and Phil were in the laboratory building, and had not come out. This same watchman had discovered me lying unconscious just outside the door. He had been attracted by the furious barking of Gyp who had followed me out and refused to leave my side in spite of the rising heat from the burning building.

The old Doctor gone—Phil and Theda too! But somehow I felt that, though their third dimension had doubtless been destroyed, still their other two must be together and safe and happy. And the papers and formulæ and records were all burnt, and the machine was destroyed. It was up to me alone to acquaint the world of the wonders that Phil had performed and to seek to have the secret of the ray rediscovered.

I searched the ruins, but found nothing but a hopeless wreck of the projecting machine, the warped and melted screen with the rim of tulanium still intact—and the queer transformed bust of Shakespeare blackened and broken in two. Otherwise it was unharmed.

I told my story to many. But they only laughed at me or listened in an indulgent manner, that plainly showed that they thought me mentally unbalanced. I exhibited the flat guinea pig and called attention to the transposed eyes and feet of Gyp. But I convinced no one. The tales I told them were too marvelous to seem feasible. I tried to get the surgeon to tell what he knew about Dr. Derioux's hand, but he refused to discuss the matter. My friend, Dr. Fitzpatrick, the psychoanalyst, was the only one who listened seriously to my complete story. He admitted that he was at a loss to explain certain things, especially Gyp's eyes. But he almost convinced me that I had been hypnotized by Theda and was made to see things that did not exist.

"It was either that," he declared, "or the surgeon and the physicians are right in thinking that the blow on your head caused you to be afflicted with a peculiar obsession. It may be only temporary, but if I were you, I would refrain from discussing the subject of dimension segregation, because you are only convincing the world that you have had hallucinations and you are injuring your reputation for levelheadedness."

I could not have been deceived. No, the demonstrations were real. But, like Galileo, I had to renounce my theories at the beck of an unbelieving world in order to save myself. I worked secretly to discover the mysteries of the segregating rays. But I have not the brain of a Philip Tulane nor his knowledge of Physics.

After promising not to publish it during my life

time, I did finally get a signed statement from the surgeon describing his examination of the hand of Dr. Derioux, while it was in the one-dimensional state and after it was restored. This statement is on file with the records of the "Society for the Investigation of Curious Phenomena." In the museum of the same organization are the bust of Shakespeare "with the angle of incidence of the dimensions altered," and the two-dimensional guinea pig. This latter has aroused much speculation. It has been examined by numerous artists who have declared that it is neither a clever etching, nor a painting, nor a print, nor any other form of pictorial representation with which they are familiar. Examination under the microscope has failed to reveal that it is anything other than what I claim it is—a real two-dimensional guinea pig.

And Gyp—I adopted him after he had saved my life. He is not here to give evidence any longer, but he was a noted character on the campus of Old Bennett, and you could find any number of men, who were students there when the Old Bennett was destroyed, and when the new University was built, who would swear that his eyes and his front feet became transposed about the time of the earthquake. After living to a ripe old age, he departed to what I like to call "the Higher Plane."

I have never been able to reconcile Biology and Immortality. But as I grow old, I begin to have thoughts about death and what comes after—if anything. And I like to think that when my time comes, I shall cast off my cumbersome third dimension and pass on to that upper plane where, in the words of Theda, "There is no immorality or convention or scandal, and everything is beautiful and pure, and love is on a higher plane." Perhaps in that existence she will be able to spare me a little of her love which was denied me in this world. I hope to find the dear old Doctor there. And I believe that Phil and Theda have been happy there these many years.

As for me—I am already on the platform ready to be projected. Push the lever forward! And smash the reverse!

THE END

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