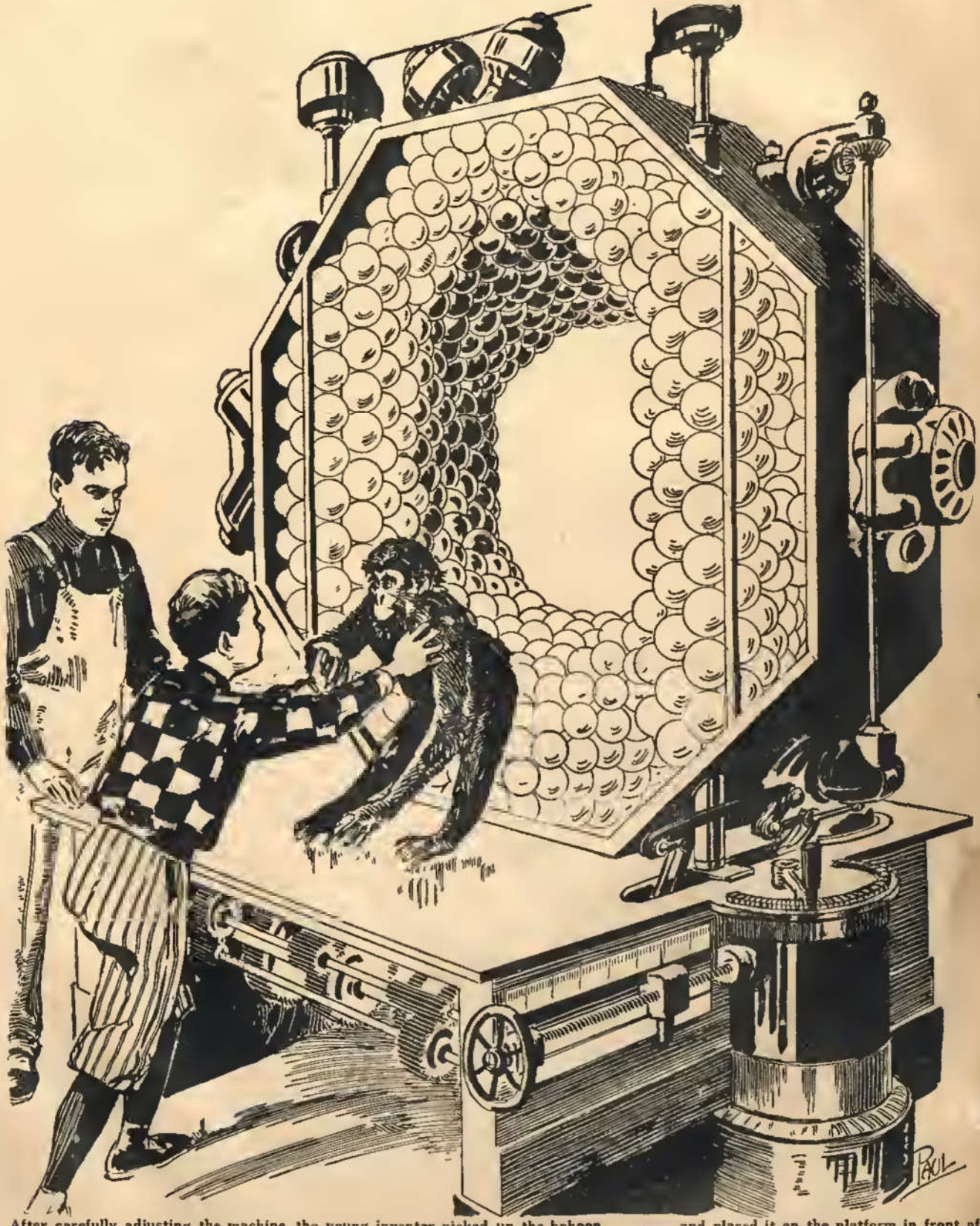
The FOUR-DIMENSIONAL ROLLER-PRESS

- By Bob Olsen -



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ACTING on the suggestion of my attorney, I am writing a complete account of all I know concerning the unparalleled disappearance of William James Sidelburg. Though his childhood and early education have an important bearing on the case, it is hardly necessary for me to remind anyone who has kept up with modern periodicals that he was the son of a well-known professor of psychology, and that his early training was carried on in accordance with certain revolutionary and original theories. The success of these experiments was attested by the fact that he entered Harvard University at the age of eleven; and, when he was only a boy of thirteen, delivered before a body of eminent mathematicians a scholarly lecture on the fourth dimension.

My acquaintance with young Sidelburg began about a year after the mathematical lecture which brought him so much newspaper fame. I had just secured my M. E. degree from a well-known engineering school, and had registered with an employment agency conducted by the college faculty. One day, early in the summer I received from the agency a notice requesting me to apply in person to Mr. Sidelburg.

Of course I had heard of Sidelburg through the papers, and was prepared to meet a young man; but I was genuinely surprised to find that he was not only young but extremely boyish in appearance and in dress. When he spoke, the childish treble of his voice seemed strangely out of keeping with his learned vocabulary and well ordered phrases.

He explained briefly that he was planning the construction of some new psychological apparatus, and required the assistance of a man familiar with machinery,—especially one who was a skilled wood-turner and pattern-maker. He had made careful inquiries into the records of a large number of candidates, and had selected me because I had distinguished myself particularly in electricity, mathematics, and pattern-making, and also because I was one of the younger members of my class. The matter of salary, hours, and so forth were easily disposed of; and I went to work for him the following Monday.

THIS, without doubt, is one of the cleverest fourth dimensional stories that has ever appeared in print. If you have often wondered what the fourth dimension is, and if you have had any trouble comprehending what it is all about, you positively must read this story, because it shows, in non-technical language, just what the much-maligned fourth dimension really is. The editors of this publication believe that there is such a thing as the Fourth Dimension. We, however, have as yet not advanced sufficiently to grasp the mathematics or the mechanics of it, and we can only dimly reason that, mathematically, there must be such a thing. This story as told so plausibly by our new author, makes excellent reading for all those interested in the somewhat occult topic.

His father owned a residence in Brookline, Massachusetts, with grounds covering several acres. In a remote corner of the estate, at some distance from the house, stood the building which young Sidelburg used as his private workshop. It was remarkably well-equipped, with an electric switchboard, giving a large range of currents, both direct and alternating and at high and low voltage. There were lathes and other machines for working in wood and metal; and everything was of the best and latest design.

Sidelburg had already prepared a set of blueprints, and he put me to work turning out some of the parts. I found that his drawings called for several thousand pieces of maple turned out in the form of perfect spheres, about six inches in diameter. At my suggestion he ordered these spheres from a firm which made a specialty of work of that sort, and this left me free to spend most of my time on the gear wheels and other metal parts of the machine.

During all this time, I had absolutely no idea of the purpose, or even the general outlines of the invention. My work had been confined to the individual parts, and all the assembling was done by Sidelburg himself. As soon as enough of the parts were ready, he began setting up the device, not inside the laboratory but out-of-doors in an open space adjoining the shop. He explained that for certain reasons it would work better in the open air, where it would be free from the restricting influence of the ceiling and the four walls.

To protect it from occasional showers, and from the more frequent prying eyes of inquisitive neighbors, he erected a flimsy awning and two screens of canvas. Though resembling a tent, it could hardly be called one, since it was completely open on the sides which faced the work-shop and the dwelling-house. It was connected electrically with the laboratory, and had four powerful arc lights for use in case he wished to work at night,—which, by the way, was very seldom

Judging that he had good reasons for his strict observance of secrecy concerning the purpose of his invention, I discreetly forbore asking any questions pertaining to this subject. The information, when it finally came, was entirely voluntary on his part.

We had been working for about three months, and the machine had at last assumed tangible shape, when he called me from my work one day and asked me to come and inspect the device.

"I suppose you wonder what it's for," he suggested.

I admitted that the mystery of its purpose had given me some concern.

"Well, I suppose it's time I told you all about it. I'll need your help to operate it, and you may as well begin now to study the principles underlying the contrivance. I'm going to call this a four-dimensional roller-press. As the name implies, it is a device for compressing or expanding the amount of an object's fourth dimension."

Then he gave me a very scholarly and detailed account of the inception of his idea, and the theories which he had formulated and was now trying to prove. He first showed me a clipping from a magazine article giving a review of a paper by Mr. A. G. Blake, fellow of the Royal Astronomical Society of London. The theory propounded by Mr. Blake is that the density of an object may be regarded as its extension in a fourth dimension.

I have taken the liberty of quoting a few passages

directly from the article, expressed in Mr. Blake's own words:

"Our ideas of the dimensions of a body are largely derived from the circumstances in which these dimensions may undergo variation. Thus we speak of a piece of paper as being of two dimensions because of the greater difficulty of changing its thickness compared with the difficulty of changing its length and breadth.

"In 'Flatland—a hypothetical region where only motion confined to two dimensions is possible—it is quite conceivable—nay it is a necessary assumption if we are to allow the possibility of concrete bodies in it—that the bodies should have a certain tbickness in a third dimension which would be invariable in individual bodies, but not necessarily uniform among different bodies. Thus the sum total thickness of bodies in 'Flatland' would be fixed and invariable. To the inhabitants, who would be incapabls of realizing thickness, this would result in the conservation of some physical attribute peculiar to bodies of two-dimensional space.

"In seeking evidence of a fourth dimension we must draw our inference from the conservation of some physical attribute peculiar to three-dimensional space. The most obvious—indeed the only one—is the conservation of mass.

"In our three-dimensional universe every body has a thickness in a fourth dimension, which is variable in different bodies but invariable in the same body, and that thickness is the body's density.

"Though we can not directly change the extent of a body in its fourth dimension, we can do so indirectly by taking advantage of the principle of the conservation of mass and compressing the body in three dimensions. This always increases its density. The two-dimensional equivalent to this is that in two-space it is impossible to alter the third dimension, yet by compressing it in two dimensions, the third will be increased while the volume will remain constant."

Though rather technical, tbis sounded perfectly consistent to me; but in order to be sure of my complete comprehension, young Sidelburg elucidated, amplified, and illustrated the discussion of the subject of hyper-space, somewhat as follows:

"Suppose we start with a point and move it a unit distance, say a foot, in any definite direction. Tbis is exactly what ws do when we draw a line with the point of a lead pencil. The line which results is an object of one dimension, which is length. If, however, we move our line at right angles to itself for any distance, a plane having two dimensions, length and width, is generated. For instance, if I draw out this curtain, which looks like a mere stick, or line, a flat surface or plane is formed. Now, if our plane is moved at right angles to both its dimensions, a three-dimensional solid or cube is produced. We migbt illustrate tbis by the opening of an opera hat or Japanese lantern. Let us continue the process one step further, moving our solid cube its own length at rigbt angles to each of its three dimensions. Then we should have a four-dimentional unit, which mathematicians call a hyper-cube or tesseract. As you doubtless know, I have worked out the matbematical formulas of several otber regular four-dimensional objects. To tbese I bave given appropriate names such as polyhedrigons, sextacosiahedragons, and hecatonicosiahedragons.

"Here is another eonception of a four-dimensioned object, based on the circle rather than the cube, and on rotation rather than movement at right angles. Let us go back to our one-dimensional line and rotate it about a point midway between its extremities. What is formed? Clearly, a circle, which has extsnsion in two dimensions. Next, we rotate our circle (a plane), about ons of its diameters (a line), as an axis, and we get a three-dimensional solid, it may be a sphere. Now, the question arises, what will happen if we rotate our sphere about a plans which passes through its center? This would mean rotation through a fourth dimension, and a four-dimensional byper-sphere would result. Can you not easily imagine such a thing?"

I confessed that I could not conceive of rotating a solid object about a plane and through a fourth dimension.

"Of course," he continued, "such an idea is contrary to our common-sense notions, since we are constantly hedged about with three dimensional objects and three-dimensional concepts. If we could actually move in a fourth dimension, many strange things would be possible. We could pass out of a locked cell without touching door, window, or wall; we could take out the inside of a watermelon without disturbing tbe rind; a doctor could remove an appendix without cutting the patient's skin.

"These things sound like miracles; but, after all, what are miracles but phenomena which, on account of our ignorance, we cannot explain? The submarine and the airplane would have been miracles to our great grandfathers; and what are these inventions but the first feebly successful steps in man's efforts to conquer the *third* dimension? It wasn't so long ago that man was like the restricted inhabitants of Mr. Blake's imaginary 'Flatlands'—confined to the two-dimensional surface of the land or ocean. Subways, elevated railroads, mines, and skyscrapers are other examples of man's efforts to branch out in a third dimension. When our conquests of the air and of the submarine and subterranean regions are complete, the next step will be that of wresting from nature tbe secrets of the fourth dimension.

"Evidence of the existence of such a dimension are abundant in nature. Taks, for example, the left and right symmetry of almost any natural object, such as the human body, for instance. Just as the two halves of a symmetrical two-dimensional object, such as a leaf will fit if folded over along the line of the midrib, through the tbird dimension, so the human body if rotated on a plane through a fourth dimension, would fit part on part.

"It is a simple matter to find out how you would appear if you turned around through the fourth dimension. Just look at your image in a mirror. Suppose you part your hair on the left side. The image man has his parted on the rigbt side. Hold out your right hand, as if to shake hands with your image. The looking-glass man extends his left hand. Your bands are directly opposite eacb other, instead of being crossed in front as they would be if you shook hands with a real person.

"Now to return to Mr. Blake's theories. Suppose

I cut a circle out of paper. Since its thickness is practically zero, we may consider this a two-dimensional object; but if I pile several thousand of these disks of paper one on top of the other, a solid with a definite thickness is formed. This cylindrical rolling-pin which I have in my hand was actually made that way.

"Mr. Blake calls attention to the familiar fact that compressing an object in three dimensions increases its density. This is exactly what would happen if density were a fourth dimension. My idea is to reverse the process. By applying pressure to an object in the direction of its fourth dimension, its four-dimensional extension will be diminished, and all its other dimensions will be increased. In other words, the volume would be enlarged and the density decreased.

"Let me illustrate with an example from two-dimensional space: I have prepared a quantity of biscuit dough, and you will notice that I have cut out several objects of varying thicknesses. I can increase the thickness of any of these little squares by pressing them with my bands around the edges. If I apply pressure from above, by means of tbis rolling-pin, the thickness is greatly lessened, but a corresponding increase in the length and width has taken place.

"Here is a two-dimensional man, which I cut out with a form such as our grandmothers used for making ginger-bread men. If I roll him out flat, he still retains the same general form, but he has expanded in his two-dimensional world, while his third dimension has been diminished.

"If an ordinary human body were compressed in the direction of a fourth dimension his volume would increase and his density decrease. This would greatly lessen the labor of walking, would make it as easy for a person to float on fresh water as on the waters of the Great Salt Lake, and might realize the dreams of Darius Green, who, you remember, tried to fly by means of wings propelled by his own muscles.

"Of course, in order to produce pressure in a fourth dimension, it is necessary to have a four-dimensional object. Tbis I have succeeded in accomplishing with the aid of my mathematical formulas. Just as I built up a three-dimensional cylinder by piling together a large number of circles, so I have constructed a hyper-cylinder, or four-dimensional roller by joining together a large number of spheres."

He then called my attention to certain parts of the mechanism which had interested me particularly, since they were the most distinctive features of the machine. I can think of no better way of describing one of these four-dimensional rollers than by comparing it to a cluster of toy balloons, a bunch of grapes, or a blackberry. Of course, it was more regular in shape than either of these objects, and was composed of the six-inch spheres which I have mentioned before.

Thus Sidelburg continued: "Just as a solid is bounded by surfaces, so a four-dimensional object is bounded by solids. Bear in mind that in grouping these spheres together they cannot be placed side by side, one in front of the other, or one on top of the other, as any one of these methods of joining would simply be extending the object in one of its three dimensions. They cannot be arranged next to each other, but must be put through each other or around each other. It doesn't matter much which way you look at it, bnt perhaps the term 'around' is easier to comprehend than 'through'."

The rollers were eight in number, and were arranged in tbe form of an octagon surrounding an open space about six feet across. That is, the space looked open. The youthful inventor explained that owing to a considerable, but invisible extension of each of the rollers in the fourth dimension, the space was really full, except for a very small aperture to admit the object to be compressed.

At his suggestion, I tried to thrust my hand through this space, which, as far as visible evidence was concerned, was totally vacant. Much to my astonishment, my hand encountered something palpably hard and solid, nor could I force my arm through the six foot opening.

By an ingenious arrangement of gears, operated by a powerful electric motor, the eight rollers could be made to rotate in unison. The amount of opening between them could be adjusted within a fraction of a centimeter by means of a very accurate micrometer screw turned by a wheel about the size of the steering wheel of an automobile. This wbeel could either be operated by hand; or, if any especially large force were desired, could be put in gear with the electric motor by the simple expedient of throwing over a handle very much like the controller of a trolley car.

Having thus explained the theoretical and mechanical principles underlying his invention, Sidelburg proceeded to test it. I could see that he was very nervous and excited when tbe final moment arrived which would determine whether he had wasted an enormous amount of money and labor, or had made a revolutionary discovery.

The first object run through the press was a cylinder of steel about two feet long and three inches in diameter. It was a waste piece sawn from a longer bar which had formed one of the shafts of the machine. He placed it on the table in front of the rollers, adjusted it so that it came exactly in the center of the octagon, and directed me to throw the switch. With the jerky motion of a mechanism operated for the first time, the rollers began to rotate. As he pushed the cylinder forward it seemed to be caught by invisible claws and sucked slowly into the open space.

Sidelburg darted around to tbe other side, and breathlessly waited for it to emerge. A cry of joy escaped his trembling lips: "Eureka! It works!" And he seized the piece of metal and held it out for me to inspect. It had expanded to more than twice its original size, but except for the apparent decrease in density, still preserved the appearance of steel.

"Tbink what this will mean to the construction of aeroplanes, or any other machinery, for that matter," Sidelburg enthused. "It will be an easy matter to make steel which is lighter than aluminum."

"But will it have the same strength, volume for volume?"

"Probably not. That we can easily determine by

making the usual tests; but if my theories are correct it will be possible to make an enormous decrease in the weight with only a slight diminution in strength. Now I'm going to see what will happen if I press it to the limit."

He started the machine once more, and as soon as the rollers had taken hold on the steel rod he threw over the controller handle, thus starting the mechanism which pressed the rollers together with great force. The severe strain whicb this put on the machine was shown by the ripping, grinding noise which it emitted.

The result was probably anticipated by Sidelburg, but to me it was a considerahle surprise to see the solid chunk of metal swell up like an enormous toy balloon, and go sailing away into space, carrying with it the canvas awning which covered our out-door machine shop.

"That illustrates another possibility," exulted the inventor. "Think of a dirigible balloon made of solid steel! No expensive silk covering, no dangerous explosive gas, just a piece of expanded metal with a propellor and rudder and elevating planes to direct it in whatever direction you desire. Now I'm going to try the effect on a living heing. Jocko will have the honor of being the first living subject to go through the four-dimensional roller-press."

Jocko was the name of Sidelburg's pet monkey, a very droll creature which he kept chained to one of the poles of his out-door laboratory. I had always regarded its presence as but one of the many indications of Sidelburg's natural boyishness; and the idea that he was contemplating using it to experiment upon had never entered my mind.

After carefully adjusting the machine, the young inventor picked up the bahoon (I should judge that it weighed about fifty pounds), and placed it on the platform in front of the machine. He had some difficulty in forcing the animal's head between the rollers, but I have no doubt that it would have been much harder had not Jocko become accustomed to the appearance and noise of moving machinery.

As we expected, Jocko appeared on the other side, somewhat augmented in size; though the machine had purposely been adjusted so that only a slight diminution in the fourth dimension or density would take place. Since the monkey seemed in no wise disturbed hy the operation, and gave no indication that he had suffered any pain, we decided to repeat the process. The wheel of the micrometer was turned a fraction of a revolution, and this was repeated several times, until Jocko had assumed the proportions of a good sized man. When placed upon the ground, he behaved in a perfectly normal manner, except that his motions were extremely rapid, and when he moved about it was with surprisingly long leaps and bounds. Sidelburg explained that this was due to the removal of some of the inhibiting effects of gravity.

So elated was he with the manifest success of his invention, that he forgot to chain Jocko again, and the transformed animal was allowed to jump around at will and enjoy his new freedom.

Then nothing would do but that Sidelburg must try the machine on himself. In vain I pleaded with him to await a time when the experiment could he performed with other witnesses than myself. I told him I did not feel like bearing the responsibility alone; and in answer to this he hastily wrote and signed a note ahsolving me of all blame in case anything went wrong. Tbis paper I have filed with the police authorities of Brookline.

Realizing at last that he was determined to experiment on his own body in spite of all my pleadings to postpone the test, I grudgingly consented to assist him. All the details of adjustment, however, I insisted that he should attend to himself. I merely waited until he had taken his position on the platform; and when he gave tbe word, threw in the switch.

The effect on Sidelburg was very much like that produced on the monkey the first time it went through the press,—namely a slight increase in bulk. I believe I hinted before that he was rather small in stature. His original height was about five feet and four inches, and he couldn't have weighed much more than a hundred pounds. After passing through the machine, however, his height was approximately five feet and eight inches; and one would have estimated his weight to be ahout a hundred and fifty pounds. This, though, was deceptive, for his weight couldn't have changed.

"How do you feel?" was my first question.

"Fine. When I was going through, I had a kind of puffy sensation, such as you have when you fill your lungs with a deep breath; but that's gone now, and I feel perfectly normal, except that it seems much easier to move." To illustrate this, he ran out on the tennis court, which was close by, propelling himself with enormous bounds, and jumped over the net. He cleared it by fully three feet! He could have easily broken the world's record for the high jump.

"I've always wanted to be a big man," he cried, "and now I can be as big as I wish. I believe I'll go through once more."

Again I begged him to wait, but with as little success as before. He gave the micrometer wheel an almost imperceptible twist, and stretched himself out on the platform. I turned on the current and the rollers began to revolve. So intent was I on watching Sidelburg as his head slowly entered the jaws of the marvelous machine, that I had not noticed the return of Jocko.

My first warning of danger was a harsh grating, gripping sound, exactly like that emitted by the machine the last time the steel rod went through it. I turned to the switch board, and was horrified to see Jocko clinging to the handle of the controller, which—doubtless in imitation of his master—he had just pulled down.

Sidelburg's shoulders and chest were just emerging from between the rollers. They were swollen to enormous proportion. From his mouth escaped a shrill cry like that of a wounded fowl; and words, thin, quivering, and very far away pierced my terror-stricken brain. "Turn off the power—for God's sa—"

I dashed to the switch-board. Jocko evidently mistook my sudden action as directed against him, for he bared his teeth and leaped upon me. It was not difficult to move him from side to side, for he was very light, but his strength was enormous. He wrapped his long arms and legs around me and

held me powerless. But desperation gave me the strength of a madman, and I finally wrenched an arm free, grasped a block of wood, and gave the ape a stunning blow on the head. He broke away from me, and with stupendous bounds leaped out of sight.

By this time, the rollers had passed over Sidelburg's torso and thighs, and were about even with his knees. His body was bloated to the size of a large balloon; and it seemed almost about to lift the machine, which was already rocking on its foundations.

Just as I pulled out the switch which stopped the motion of the rollers, a sudden gust of wind caught the swollen body, and added just enough force to wrench the press clear of the ground. Sidelburg's feet and ankles were clamped firmly between the rollers; and as he slowly rose in the air, like an enormous dirigible, he took the machine along with him.

The next day some fisherman off the coast of Newfoundland reported seeing a Zeppelin flying end up at a height of about a mile. As far as I know, that was the last that was seen of William James Sidelburg and his four-dimensional roller-press.

Some of my friends to whom I have related this story have asked me if I could reconstruct Sidelburg's invention. This I feel quite confident that I could do, with the aid of the blue-prints and formulas which he left behind; but the mere thought of making the attempt is horribly repugnant to me. I have noticed that Nature has a way of visiting dire punishment upon importunate mortals who seek to pry too deeply into her secrets.

THE END.

Discussions

In this department we shall discuss, every month, topics of interest to readers. The editors invite correspondence on all subjects directly or indirectly related to the stories appearing in this magazine. In case a special personal answer is required, a nominal fee of 25c to cover time and postage is required.

A SAN FRANCISCO RADIO ANNOUNCER SPEAKS

Editor, AMAZING STORIES:

I have felt the urge to tell you what I think of AMAZING STORIES for a long time, but before offering any criticism, or suggestions, I must say that AMAZING STORIES is filling a place in the needs of the scientifically minded people of this good old earth. I have found that most persons afflicted with a touch of science, have become addicts to *fact*.

Now Fact is all right in its place, a blessing that we do need, but *fact* does not concede to imagination even though imagination *will* concede to fact. This makes the victim rather cold-blooded, with a tendency to be heartless. This last state is against nature and, though man who has fought and won against nature time and time again, has to be pretty careful because some way, or somehow, nature crops up again and wins in the end; and the scientist who lacks enough imagination, and who stuffs his anatomy so full of *fact* that he hasn't room for anything else—will soon be *passé*. The ideal attainment, therefore, is one of a complete balance of Fact and Imagination, slave to neither of the two, but master of both; and if ever a publication can be offered to a person as a means of achieving this balance—it is AMAZING STORIES.

In offering my criticism, I wish to say mildly that the story "The Green Splotches" really deserves no place in this magazine. This story treats on something that is impossible: namely; "Plant men that can talk." Where do they get their lungs? Why does not the story tell us how, or why the Plant Men picked the certain spot they did in order to land? Funny that they would remain ignorant of the fact that other people existed, and in much better "specimens." We learned no secret from their methods of communication nor of controlling their great ship. And, as a whole, the story left us with much of a feeling of disappointment.

On the other hand, such stories as "Off On a Comet," "A Columbus of Space" and even "The Island of Dr. Moreau" are all worthy of the highest praise (I am speaking of my own personal feelings) these stories were all very entertaining, and each one seemed unsurpassable until the next one came out and took the honors away from it. But the best story of all is "The Land Time Forgot" and its sequel "The People Time Forgot" In this story, one gets a little of the *human* angle which is so desirable; human feelings, human sufferings, of a real physical nature which we can all understand, rather than the "mental tortures of some great brain which we sympathize with, but cannot understand." In bringing the two girls Lys and Ajor into the plot, Mr. Burroughs lends a *something* to the story that makes it worth reading. We like to read of such things as a land still infested with dinosaurs, petrodactyls, the brontosaurus and those things *because they are real* They *have* lived and we have *facts* enough to satisfy the most critical of scientists.

However, Mr. Burroughs has created a situation that I am sure our readers are not going to like if it turns out the way it looks. He has ended the second installment with the Americans leaving behind good old Billings. Now that will never do. If the story ends like that, then for heaven's sake write a sequel to it that will bring Billings out of it—with the girl. Even I could get him out of it, so there is no question but that Mr Burroughs can.

EDWARD J. LUDES,
Chief Announcer of Radio KYA,
San Francisco, Calif.

[The letter which we print carries out the gist of what we have said in reference to another correspondent—that imagination plays a great part in the development of natural science. What our correspondent says about "The Green Splotches" is in the same line of thought with what some others have written us. An old saying is that it is impossible to please everybody, but our magazine shows us that it is equally impossible to displease everybody, because many of our readers have been greatly delighted with the very story he condemns. Mr. Strihling is an author of high reputation. You need not have worried about "good old Billings" in Mr. Burroughs' story He comes out all right in the end, as you probably have seen.—EDITOR.]

A VOICE FROM FAR OFF INDIA

Editor, AMAZING STORIES:

I have been regularly reading the AMAZING STORIES magazine since April last and I have found that the contents really are amazing. To read your stories one must have a great deal of imagination and I do not boast when I say that I have got that. Here in far off India I hesitated ere I wrote to you this letter because I thought that you in New York would take no heed of me. But as I continually read in your magazine, that you invite all your readers to write to you, I venture to write and tell you that I really like this magazine. There are no stories that I have not read up to now, and all of them are really excellent. Your serials, like "Station X," "A Trip to the Centre of the Earth," "A Columbus of Space." "The Second Deluge," "The Purchase of the North Pole," "The Man From the Atom," "Beyond the Pole," "Off On a Comet," "The Island of Dr. Moreau," etc., etc., are simply superb, while the short stories are really grand.

DADY A. CHANDY,
Bombay, India.

[We feel that the most complimentary reply we can give to this flattering letter from India is to print it in full. We would like to say that we are doing our best, but while we have our best in mind, we realize that there is always room for improvement, and we want to substitute better for best, in a sense, so as to feel that we are going to improve our AMAZING STORIES issue after issue, as the months go on. Such letters as this, which we feel almost pass our deserts, are very acceptable.—EDITOR.]

TELEPATHY AND THOUGHT MACHINES IN ACTUAL LIFE

Editor, AMAZING STORIES:

I have always been intensely interested in that class of literature which you so aptly term "scientifiction," and since AMAZING STORIES first appeared I have been an avid and enthusiastic reader of its engrossing contents

Lately I have noticed that you referred to certain items in the news that apparently substantiate two remarkable tales which have appeared in this magazine. The stories were "The Island of Dr. Moreau," by H. G. Wells, and "The Red Dust," by Murray Leinster. But they are not the only examples of scientifiction which have proved true to an exceptional degree. Within the last few weeks I have come across no less than three newspaper articles based on subjects which, as fiction, had already appeared in AMAZING STORIES. One (which recently was printed in *The Evening World*) was headed "Insects Imperil Life of Mankind," and it told as fact what H. G. Wells related so vividly in "The Empire of the Ants." Then again, the Sunday *World* of January 9th contained an interesting account of the startling experiments by means of which an Italian scientist (Prof. Cazzamalli of the University of Milan) discovered that under certain conditions the human brain emits radiations which may be received by a specially constructed complex radio set.

What might happen when this device is perfected has been brilliantly portrayed by Samuel M. Sargent, Jr., in "The Telepathic Pick-Up." The third article which has come to my attention is perhaps the most extraordinary of all. It appeared in *The World* on January 16th, and related how the disappearance of Dr. Knute Houck, of Washington, may have been due to a mental disturbance caused by his absorption in a mysterious "Thought Machine," which "is supposed to disclose the innermost thoughts of any one who has mastered its use." Since this machine is a reality, having been patented by its inventor, a Polish mathematician, the readers of AMAZING STORIES can only hope that it does not affect mankind as does its fictitious counterpart in Ammianus Marcellinus's realistic tale, "The Thought Machine."

AARON L. GLASSER,
New York, N. Y.

[The editors are very glad to see that our readers back up the editorial policy of AMAZING STORIES, namely, that what is scientifiction today will very likely be fact tomorrow. We were fully aware of all the references which our correspondent was so good as to cite, including the so-called Cazzamalli experiments on the human brain, supposed to emit radiations. The editor of this publication is also the editor of RADIO NEWS and SCIENCE AND INVENTION, and has been trying for a number of months to get a line on Professor Cazzamalli, but there seems to be no such individual, and no one in Milan seems to know anything about him. We have, therefore, come to the conclusion that Professor Cazzamalli is very likely a myth.—EDITOR.]