As you all know, Edgar Rice Burroughs, the creator of Tarzan, John Carter, and numerous other fictional characters, died in March, 1950. Along with a sense of personal loss, his fans in addition suffered the loss of many more possible stories of Mars, Pellucidar, and of an African jungle that never was. There have been no posthumous Burroughs stuff published. And something as a good authority the only unpublished Burroughs stuff was an unfinished Tarzan novel, a detective story satire, and a few further odd, or unfinished pieces. In addition to this there is one unfinished John Carter story, the first part of which was published in AMAZING STORIES as "Skeleton Man of Jupiter". A complete Tarzan novel was in Anstory, and a couple of short stories elsewhere. A complete Pellucidar novel was in AMAZING STORIES as three long novelettes, and what was apparently the first part of a new novel which appeared in BLUE BOOK about completes the list of Burroughs stories that have not appeared in book form.

Burroughs' fans have been restless and annoyed about this situation, but the Burroughs estate apparently are sitting on their royalties from other sources, and nothing will be done in the direction of getting new books published. It was hoped that John Coleman Burroughs would at least finish his father's stories, if not write some of his own. Nothing was heard of this idea of writing their own continuations. It is said that youthful Ray Bradbury, when he could not afford to buy another Burroughs book, wrote his own further adventures of the characters.

Anyway, somebody, whether it was Stuart J. Byrne alone, or Byrne, aided and abetted by Ray Palmer decided to do something about it. In the Second October issue, 1955 of FANTASY TIMES appeared an article by RAP. In it he announced that he had on his desk a new novel, entitled "Tarzan on Mars", by an unnamed author. He swore it was the best Tarzan (or Mars) book ever written. He called for a campaign of letter writing to force ERB, Inc. to name a successor to Burroughs. Palmer declared he would be "the logical successor", the novel (120,000 words) and the magazine in which to publish it. He called attention to the forthcoming November issue of OTHER WORLDS for further details.

The magazine cover featured the words "Tarzan Never Dies", together with a St. John illustration that had nothing to do with Tarzan, as a tie-in to seduce the unwise buyer into believing it contained a new Tarzan story. "Tarzan Never Dies" was a further rousing plea by Palmer to inaugurate a campaign to get ERB, Inc. to name a successor, and his personal choice was his still unnamed author of "Tarzan on Mars". He followed up in subsequent issues with more of the same, prominently featuring the words "Tarzan" and "Edgar Rice Burroughs" on his covers, until he was ordered to cease and desist by Burroughs, Inc., who warned him these words were copyrighted and the property of the Corporation. In the meantime Palmer had disclosed that his author was John Bloodstone, or Stuart J. Byrne, one of his own stable of s-f writers. ERB, Inc. further told him that Byrne was not much of a writer, and that "Tarzan on Mars" was not much of a story. Certainly not up to the quality of Burroughs. Palmer claimed that they didn't even read the story.

That apparently ended the matter, but actually Palmer had nothing to lose, and all to gain. If Bloodstone had by some wild quirk, actually been named successor, Palmer would have dissected him as exclusively for OTHER WORLDS, and with Bloodstone grinding out reams of Burroughs stuff, Pal-

mer would have been set. As it was, the worst he had was much in circulation whenever he had the magic words, "Tarzan", or "Burroughs" on his cover.

Now what was the reaction of the Burroughs fans to Palmer's announcement? Well, Vernel Cor
def, the No. 1 Burroughs fan had a long 'Open Letter to Ray Palmer' in the June '56 FANTASY TIMES. In it he expressed the feelings of many fans when he said, "Sure, I'm all for a new Tarzan novel, but——" The "but" was, "let's get all of ERB's unpublished stuff in print, and see what the Master's final words were on the adventures of his characters before starting a new series." I wrote to Palmer after the November issue of OW and asked pretty much the same thing. I further stipulated that any successor to ERB should, in addition to being a first-class craftsman in his own right, should have a style not too dissimilar to that of Burroughs, though not merely a slavish copy of that entirely individual style. Most important, he should be a man who is steeped in the Burroughs tradition, with a thorough knowledge of the Sacred Writings. I also warned against a flood of assembly-line, spurious Burroughs-type novels, written by people who don't know, or give a damn, solely for a buck. I wound up with a curse on anyone who did not keep the faith.
I have a special interest in the title, "Tarzan on Mars", because it is possible that I was the first one to think of it. Back around '48 I had a little piece in the BURROUGHS BULLETIN, in which I said it would be a swell idea if Burroughs sent Tarzan to Barsoom for a whole new series of adventures. Burroughs was still alive then, though ill, and was telling that he would recover, and go on to write it some day. If Bloodstone was inspired even a little bit by my idea, I am honored. And now to the story itself....

When it opens we find La of Opar still being pursued by the lustful Cadj, the High Priest of Opar, who insists that it is high time she make a mate, according to the laws of Opar. (Now this is passing strange, because we know that Cadj had his face removed by Jad-Bal-Ja, the Golden Lion in "Tarzan and the Golden Lion"). In an attempt to escape him she makes her way to the vaults below Opar that figured in several other Tarzan adventures. La finds a tremendous jewel set in an ornament in the Chamber of the Dead, that is normally owned by the Oparians. Entranced by the beauty of the ornament she is seized by Cadj, who in his madness completely forgets to be afraid of where he is.

Here we cut over to Tarzan, who is hosting play at a couple of British Intelligence men who have come to seek his aid. Apparently the story opens between the time Mussolini invaded Ethiopia, and the start of WWII. Tarzan had taken the agents out hunting, and is pondering the things they have told him. Those in high government circles can see the approach of global war, and have regarded Tarzan, as an acknowledged expert on Africa, as the natural choice for a job they have in mind. They have him in London for the part he will play in the coming war. Tarzan is troubled, for he can see that by the time he gets back to his beloved Africa, it will not be the same place he knew.

To see that he was right just read your daily paper. A new Africa is on the way. New nations are emerging, and general progress is plowing under the jungle and exterminating the hordes of game that once roamed free. In fact, Tarzan felt that since the old days were drawing to a close he might never return to Africa. His only consolation was that this decision would certainly please Jane, who had been trying unsuccessfully for close to 60 years to warn him from the jungle.

Just then his old friend little Nkima, the monkey drops in to tell him that a band of ugly Taramangani are on the way to Tarzan's area. Tarzan guesses that they are men from Opar, and takes leave of his guests to meet them, stopping only to change into his jungle regalia. The Oparians inform him that La has disappeared, and that they found Cadj dead on the altar in the Chamber of the Dead. They ask him to find La, and present him with the ancient looking diadem, that they call "The Eye of the Flaming God". Tarzan takes it home and Jane is fascinated with it. Later when she is alone in the room with it, Tarzan comes and finding the door locked, and getting no answer, breaks it down. The diadem is on the floor, and Jane is gone.

Now we switch over to Barsoom, or Mars, if you are not of the initiate. If you remember the book "Thuvia, Maid of Mars", you may recall one Tarlo, the Jeddak of Lothar, the name of the Phantom Bowman. Tarlo is a mentalist, and adept, capable of conjuring up creations of his imagination, usually bowmen. So real is his power of suggestion, that these bowmen can slay. They are not only means of defense of this city with a handful of living persons, all men. For ages the Lotharians were convinced that they were the only living Barsoomians, with the exception of a few bands of green men. When Thurgus and Carthoris first came to Lothar, Tarlo was convinced that they were only imaginary creations created by his enemies.

Ever since, Tarlo has brooded about this, and finally after all these years he had at last come to the conclusion that there was indeed a civilization of red men in outer Barsoom. Since he was convinced of his own superiority, the next logical step was to attempt to conquer the world and make himself Jeddak of Jeddaks. The fact that a person named John Carter already held this title bothered him not at the least. In fact there were only two people in the world whom Tarlo believed of sufficient calibre to cause him trouble. One was John Carter of Punderson, and the other was an unknown, but as a mentalist, and deeming that he and John Carter would be first on the list for elimination.

Accordingly, Tarlo takes himself to the outside world to learn more of it and sound out its weak points as a preliminary to conquest. He gets around, either in person, disguised as a red man, or by astral projection, often taking the semblance of someone else. He even sent an interview with John Carter, disguised as Carter's old friend Tara Tarkas, the green man. However, John Carter suspects something is wrong and pulls his longsword on Tarlo, who promptly disappears.

Meanwhile we learn what happened to La. Just as Cadj was about to knife her, she was passed over an aircraft and had his shadow on the wall. When he saw the ghost of a long dead priest, she collapsed from fear and died of heart failure. La was gazing into the central stone of the (cont. on page 47)
The Day of the Debunker
by Samuel A. Peeples

Over the years, I've found myself embroiled in a number of controversies, and each time with a self-appointed literary critic of absolutely no standing at all, who seems to get his kicks from debunking the work of famous writers. A year or two ago GALAXY SCIENCE FICTION MAGAZINE published an article debunking Jules Verne's 20,000 LEAGUES UNDER THE SEA — because Jules Verne didn't describe a periscope! Who in hell ever said he did? But this literary jumping jack proceeded to denigrate Verne's entire literary output, because he didn't anticipate the invention of a periscope for submarines! It is to his credit that the editor, Fredric Pohl, that he published my rebuttal, listing many of the other then-unknown inventions that Verne did anticipate in 20,000 LEAGUES, including fluorescent lights, pressure-chambers for underwater exits, self-contained diving gear, and self-renewing oxygen systems!... It seems that any author who attains a fairly marked success is fair game for these literary scavengers. Lacking any creative talents, they seek to destroy and belittle that of others. It is an odd commentary on their emotional stability that such acridulous horseplay means so much to them. Incredible as it may seem, I've had occasion to come to the defense of Zane Grey against Johnny come-lately would-be writers who decry his talents, and attempt to demean his literary output. I stood in good company, since Dwight Eisenhower once angrily denounced a critic who blanketed condemned Zane Grey — without ever having read one of his books! Ike said something to the effect that those who can't write — criticize... Richard Lupoff, admittedly a man who had never read a Burroughs book until he became affiliated with Canaverals Press in their publishing venture as editor, has blossomed out as the latest of these self-styled literary marvels, who feel the urgent need to inform us lesser mortals of their Olympian opinions. In the recently published (with no royalty being paid the original author) Ace edition of GULLIVER OF MARS, Mr. Lupoff implies that Edgar Rice Burroughs was a master plagiarist — a man who not only stole the central theme of his Mars Series from Edwin L. Arnold's LT. GULLIVER JONES, HIS VACATION (the original title), but also stole his leading character, JOHN CARTER, from another Arnold work, PHRA THE PHOENICIAN...! Mr. Burroughs is not around to defend himself. But coming from a man whose sole claim to literary standing is being an "editor" of an amateurish publisher who has attempted to make a fast buck by republishing Burroughs titles out of copyright, it must hurt a little. But let us examine the charges. Firstly, Mr. Lupoff from his magnificent knowledge of science fiction (he must own three or four titles, at least), has "discovered" the "lost" classic by Arnold. That's nice of him. Twenty-two years ago I paid $7.50 for a copy of this book. I didn't need his help to find it. I now own more than 4,000 fantasy titles, including almost every rarity in the field. My personal cash investment in my collection is in excess of $50,000. It goes a bit hard to have Mr. Lupoff look down his nose at me. And what's worse, pontificatingly talk down his nose to me. In Burroughs' Mars Series, we have a man transported by some strange telepathic power to the planet Mars. In LT. GULLIVER JONES, he goes by magic carpet! I have in my collection about 50 titles published before and after the turn of the century, before and after Edwin Arnold's book, in which a man is transported by mental power to another world. Now if Burroughs stole this idea from Arnold — where did Arnold steal it from? H. L. Gratacap's THE CERTAINTY OF A FUTURE LIFE IN MARS? Then we have much ado about the River Iss, and the journey down it to the dead world. Is it more likely that Burroughs read a book that was a dismal failure in England where it had only a limited publication — or that he thought of the legend of the River Styx...? Or, if you prefer, if Burroughs stole it from Arnold, did Arnold steal it from the River Styx...? Is the character of JOHN CARTER, buckle-washer and a man who has lived many lives, PHRA THE PHOENICIAN? Yes....? Please check Eugene Sue's THE WANDERING JEW. Please check George Griffith's VALDAR THE OPT-BORN, please check Waterloo's AB, SON OF THE AGES, please check.... but why go on? Which came first, the chicken or the egg. It is nice to single out Edwin L. Arnold as the father of this literary character gambit. But not very accurate historically. The language of Valdar is reminiscent of Phra, and both contain similarities to John Carter — and Jack London's STAR ROVER, and the real-life 25TH MAN, and J. U. Gleisy's PALOS, and... but the list is endless. Did Burroughs ever borrow a literary idea? Of course he did! Take TARZAN OF THE APES. Mogwli, of the JUNGLE BOOK? ROMULUS AND REMUS of ancient legend!? Something triggered the notion. There are many literary curiosities. If it gives him pleasure, I'll be glad to list a few for Mr. Lupoff's edification. In THE RETURN OF TARZAN and TARZAN AND THE JEWELS OF OPAR, we meet the remnant of a lost civilization headed by the high priestess, La. Fine. About twenty years before, a book appeared, written by Mabel Fuller Blodgett, AT THE QUEEN'S MERCY. Lost civilization — ruled by LAM, the queen and high priestess... About twenty years before that, a gentleman named Haggard detailed the lost civilization ruled by the high priestess, AYESHA. I can hardly wait until Mr. Lupoff rediscovers the lost classic, KING SOLOMON'S MINES, and edifies us dimwits by defining the hundreds of adventure novels descended from it... But his fun might be spoiled when somebody points out to him the similarities between KING SOLOMON'S MINES and a certain Old Testament tale... In every field of creative endeavor, there is a similar trend: one man builds upon the basic discoveries of another, and in the development, it is the user who gains. A most interesting example is Thomas Alva Edison, whom I suggest as the most ideal debunker's subject of them all. The electric light, the battery, the storage battery, artificial rubber, plastics, hell, you can spend your whole happy life just debunking the Edison legend. Somehow, as in the case of Edgar Rice Burroughs, I doubt if a defense is truly necessary. Just who would Richard Lupoff impress in the first place...?
An Elementary Examination of the Eighth Ray
by Frank J. Brueckel

As every Burroughs Bibliophile is aware, the technology of the red-skinned inhabitants of Barsoom is generally considerably in advance of our own. In the manuscripts relating his experiences on the Red Planet, Captain Carter speaks of a variety of scientific marvels whose possibility our own savants are just beginning to appreciate and investigate.

One of the most intriguing of these wonders is the "eighth ray," that mysterious power by which the civilized Martians lift and sustain their sleek, efficient, wingless "fliers" above the surface of their dying world. In essence, the Martian flier consists of a flat platform of wood or metal, generally long and narrow in shape, its two ends tapering to points in order to reduce atmospheric resistance. This rather structure may have a small cabin built upon it, or indeed the hull may resemble a terrestrial boat or a torpedo — the actual shape of the flier is not important to its essential operation. Built into the deck or the surrounding walls of the vessel are one or more "buoyancy tanks" which sustain the ship above the ground, much as air-filled floats help keep a heavy raft upon the surface of a lake. These "tanks" are filled with a levitative medium which the Barsoomians call simply "the eighth ray." For lateral motion through the air the flier is provided with one or more three-bladed propellers driven by what Burroughes has translated as "radium" motors mounted on the platform, though it is somewhat doubtful that the power — source of such motors is actually radium. The flier has no wings (though there is no reason why it could not be so equipped if desired) and is not dependent upon air-pressure from underneath to sustain it — it can rise from an airless planet quite as readily as from one which is blanketed by an atmosphere.

Carter's first mention of the 8th ray occurs on page 224 of A PRINCESS OF MARS, where he describes the beautiful gem worn as insignia by the keeper of the atmosphere factory:

"... a strange stone, an inch in diameter, that scintillated nine different and distinct rays; the seven colors of our earthly prism and two beautiful rays which, to me, were new and nameless. I cannot describe them any more than you could describe red to a blind man. I only know that they were beautiful in the extreme."

On page 225 it is said that the air-manufacturing process "hinges on the use of the ninth ray, one of the beautiful scintillations... emanating from the great stone in my host's diadem." One immediately infers that the 8th ray is the other of the two strange colors which Carter saw in the remarkable jewel.

Turning to page 224 of the same work, we find Carter's description of the one-man Martian flier, and read:

"The medium of buoyancy is contained within the thin metal walls of the body and consists of the eighth Barsoomian ray, or ray of propulsion, as it may be termed in view of its properties. This ray, like the ninth ray, is unknown on Earth, but the Martians have discovered that it is an inherent property of all light no matter from what source it emanates. They have learned that it is the solar 8th ray which propels the light of the sun to the various planets, and that it is the individual 8th ray of each planet which 'reflects,' or propels the light thus obtained out into space once more. The solar 8th ray would be absorbed by the surface of Barsoom, but the Barsoomian 8th ray, which tends to propel light from Mars into space, is constantly streaming out from the planet constituting a force of repulsion of gravity which when confined is able to lift enormous weights from the ground."

A professional physicist might with some justice complain that this account is vague and muddled, betraying a lamentable ignorance of elementary science. But in defense of John Carter I must remind the critic that the Captain is a soldier, not a savant. His admitted lack of a thorough scientific education and of the typically scientific mind would naturally tend to hinder and confuse his comprehension of many of the technical marvels he encountered on Mars, so he would be unable to offer complete and accurate explanations of such matters, simply because he does not fully understand them himself. Secondly, he could not adequately translate into English the technical descriptions and explanations received from Martian

* See footnote, A PRINCESS OF MARS, p. 134.
** Red, orange, yellow, green, blue, indigo, violet.
scholars and books, because he is not suffi-
ciently familiar with the corresponding termin-
ology used on Earth; hence he would often be
reduced to using the original — and to us
meaningless — Martian words, or resorting to
loose and faulty translations. And finally, in
the foreword to A PRINCESS OF MARS Burroughs
states that Carter wrote his first Martian
memoirs in 1885 — a decade and more before the
revolutionary developments which ushered in the
era of modern physics on our planet: Roentgen's
discovery of X-radiation in 1895, Becquerel's
discovery of natural radioactivity in 1896,
J. J. Thomson's identification of the electron
in 1897, Planck's quantum theory in 1900, and
Einstein's relativity theory in 1905. Earthly
science in 1885 had not yet found or developed
the fundamental concepts which are essential to
an understanding of Martian physics. It is not
at all strange then, that the Captain's efforts
at exposition should occasionally seem a trifle
obscure.

Ever since my first reading of A PRINCESS OF
MARS in 1927, John Carter's description of the
Eight Ray has challenged me to seek an inter-
pretation in terms meaningful to terrestrial
physicists. From the assertion that the first
seven rays are the seven colors of the (to us)
visible spectrum, one may draw the obvious con-
clusion that the 8th ray must be a narrow band
of electromagnetic waves, either in the imme-
diate ultraviolet (if red is the "first ray")
or in the immediate infrared (if violet is the
"first ray"), more likely the former. The pro-
pulsive power of the 8th ray may then be under-
stood simply as the well-known phenomenon of
radiation pressure, which all radiant energy
exerts on those material bodies on which it
impinges. (It is, as Carter says, "an inherent
property of all light, no matter from what
source it emanates.")

This hypothesis is consistent with the state-
ment that the 8th ray is "constantly streaming
down from the planet, constituting a force of
repulsion," for indeed all material bodies
whose temperatures are above Absolute Zero
(—459 °F = —273 °C = 0 °K) are sources of
radiation, and astronomers today know that in
stellar interiors, where radiation is extremely
intense, the upward force exerted by this en-
ergy plays an important role in supporting the
weight of the star's outer layers.

If the 8th ray is regarded as electromagnetic
radiation (light) then technically the simplest
way of utilizing it as a levitative force is to
allow the thermal radiation and reflected sun-
light from the planet to fall upon a material
surface such as the bottom of the flier, or on
thin, flat wings attached to the craft. Suppose
the flier to have a mass \( m \), and let \( A \) be the
area which it exposes to the radiation - source
(say, the planet). If I represents the intensi-
ty of radiation — i.e., the energy passing
through unit area in unit time — the pressure
exerted by this energy is

\[
F = I/c,
\]

where \( c \) is the velocity of light \( (3 \times 10^{10} \text{ cm per sec}) \). The upward force which the rays exert
on the intercepting area \( A \) is then

\[
F = PA = IAc,
\]

and in order to just support the flier at a
fixed height this force must exactly equal the
weight \( mg \) of the vessel; hence we have

\[
mg = IAc/c,
\]

in which \( g \) is the gravitational acceleration at
the position of the vessel.

According to Stefan's law of radiation, the
intensity of radiant energy from a "black"
(perfectly radiating) surface is directly pro-
portional to the fourth power of the absolute
temperature \( T \) of that surface; i.e.,

\[
I = ST^4
\]

where the proportionality constant \( S \) has the
value \( 5.775 \times 10^{-8} \text{ erg/cm}^2 \text{ sec degree}^4 \). Hence our previous equation becomes

\[
mg = SAT^4/c.
\]

Therefore to sustain the flier at a small dis-
tance above the radiation source it is neces-
sary for the source to have an absolute tempera-
ture

\[
T = \sqrt[4]{mgc/SA}.
\]

From the known mass and radius of Mars we can
take the value of gravitational acceleration
near the planet's surface as \( g = 392 \text{ cm/sec}^2 \),
so that the above formula finally reduces to approxi-
ately

\[
T = 21000 \sqrt[4]{m/A}
\]

if \( m \) is measured in grams and \( A \) in square
centimeters. If then we suppose the flier to have a mass of
500 kg = 5 \times 10^3 \text{ grams (about 1100 lb)}, and assume that the area \( A \) which it
presents to radiation is 100 square meters, or
10^6 \text{ cm}^2 \text{ (about 1076 sq. ft.)}, it is seen that
in order to maintain the flier a small distance
above the planet's surface, that surface would
need to be at a temperature of about 17,500 \text{ °K},
or nearly 30,000 \text{ °F} — approximately three
times the surface temperature of the sun, and quite
comparable to the surface temperatures of the
intensely luminous blue-white stars like Sirius
and Rigil. Such heat, of course, would volatil-
ise any known material; the flier and its cargo
would be reduced to an incandescent vapor in a
flash.

Since Barsoom's surface temperature is actu-
ally only a few hundred \text{ °K}, it is clear that
radiation from the planet is far too feeble to
support the vessel. We may then alternatively
consider the "buoyancy tanks" as large lamps
with parabolic reflectors, so suspended from
the under side of the craft as to always send
their radiation vertically downward in parallel-
side beams. In this case, the symbol \( A \)
denotes the total cross-sectional area of the
beams; but the same temperature formula still
applies — the filaments of the lamps would have

(cont. on page 10)
The Lightship Murder
Another Mystery Puzzle

by EDGAR RICE BURROUGHS

"He's still in his cabin. Come with me."

We followed Captain Black down a companionway and entered a cabin in which were two bunks. On one of them was stretched a figure covered with a piece of tarpaulin.

Captain Black jerked a thumb toward it. "There he is," he said.

Olson and I followed Muldoon to the side of the bunk and watched as he pulled down the tarpaulin. I do not know why I have such a morbid desire to see such gruesome things. I am always sorry afterward, and ashamed; but the fact remains that the corpse of a murdered person holds me in its grisly power as surely as the wedding guest was held by the glittering eye of the ancient mariner.

And this sight was hideously gruesome. MacTeevor's throat had been cut from ear to ear and so deeply that his head was almost severed from his body. From the seam and weather-beaten face his dead eyes stared horribly, his shaved upper lip was drawn back from his teeth in a snarl, the fringe of white beard beneath his lower jaw was matted with blood.

Muldoon drew the tarpaulin back in place. "I would like to question those who were on board at the time of the murder," he said.

"They are all in the main cabin," said Black, leading the way from the scene of the murder.

There were four people in the cabin that we entered a moment later. They were a sullen, dour-looking lot. They glowered at us from beneath scowling brows, but none of them spoke. Muldoon stood surveying them for a moment; then he turned toward the man sitting nearest him.

"What is your name?" he demanded.

"Bill MacTeevor," came sullenly after a moment's hesitation.

"Were the four of you in this cabin on board this ship the night of the murder?"

The man did not answer, but a woman across the cabin spoke up. "Yes," she said. "We was all here."

"And who else?" asked Muldoon.

"Only Daniel," she replied.

Muldoon turned again to the man. "I am Inspector Muldoon of the metropolitan police force, and this gentleman on my right is United States Marshal Olson. We have come out here to investigate this murder. It will be pleasanter for all concerned if you answer our questions and answer them rurally. None of you need answer a question that will incriminate himself.

"Now, when was this murder committed?"

"The night of September first, night before last."

"You are here together alone much of the time, are you not?"

"We ain't seen no one since the tender was here last time."

"When was that?"

"The second of July."

"What was the murdered man doing the last time you saw him alive?"

"He was scrappin' with her." Bill MacTeevor pointed toward a woman sitting near him.

"What is your name?" asked Muldoon, addressing the woman.

"Esther MacTeevor." She was a slatternly woman clothed in a dirty calico garment that would have been called a Mother Hubbard twenty or thirty years ago; I don't know what they call them now.

"What were you and the murdered man quarrelling about?" asked the Inspector.

"What we always quarreled about—money. He was terrible tight about money—he wouldn't give me none."

"Why did you want money?"

"Andy wanted to go ashore when the tender come. He wanted to get a job on shore. He was sick o' livin' on a lightship. I wanted the money fer him."

"Were you and Daniel related, Esther?" inquired Muldoon.

"Yes, but we weren't no blood kin."

"Just when did you see your sister last prior to the murder?" Muldoon has an odd way of skipping about in his questioning and suddenly asking what seem to be the most irrelevant sort of questions.

Esther MacTeevor puckered her brows in thought. "Let's see," she said finally, "4th o' July come on a Monday this year; an' it was just a week before the Fourth that I seen Susan last. The husband of one of her friends owns a fishin' boat, and she come with him. She spent a week with me an' went back the Monday before the Fourth. She ain't never been married, an' she likes to gad about an' visit. Special she likes to come an' see me, 'cause me an' her is the only ones left in our family."

Muldoon wheeled suddenly toward
a scrawny, hard-faced woman. "What is your name?" he demanded.

The woman started nervously as though someone had suddenly stuck a pin into her. "Ca-Carrie MacTeevor," she stammered.

"What do you know of the happenings on this ship the night of September 1?" Muldoon shot the question at her as though he were accusing her of the murder.

"I don't know nothin'," she replied sullenly. "I never done it." And then, half hysterically, "I swear to God I never done it!"

"I am only asking you to recall what you do know of that night," said Muldoon, soothingly. I think it is these quiet changes of manner that help to make Muldoon's technique so effective; his subjects are alternately soothed or shocked into revealing more than they realize.

"Well," commenced the woman, reminiscently, "it was a terrible night. The wind was blowin' a gale, an' the clouds hid every star; it was dark as a pocket except when The Light flashed — on five seconds, off fifteen. The ship was wallowin' an' pitchin', the wind was howlin' through the riggin', an' above the storm I could hear the seas breakin' on the reef. I was plumb scart; an' I was seasick, too. I staid in my bunk from right after supper. I didn't know nothin' about Daniel until mornin', when Bill come in an' tol' me."

"How long have you known Andy?"

"Eighteen year."

"Did he and Daniel ever quarrel?"

"Yes. We all quarreled. There wasn't nothin' else much to do."

"Didn't Andy quarrel with Daniel more than the rest of you?"

"No, he didn't. Andy has always been a good boy. Perhaps, bein' an only child, he's been spoiled a little; but he ain't a bad boy."

Muldoon was silent for a moment; then he turned away from Carrie. "Bill," he asked, "where was your brother sleeping the night of the murder?"

"I never had no brother," replied Bill. "Our sister, neither."

"How old are you?"

"Almost forty."

"Who was on watch the hour of the murder?"

Bill shuffled his feet nervously and cleared his throat before answering. "I was; my father went to bed early."

"How long have you known Carrie MacTeevor?"

"Nigh onto twenty year."

"Was she particularly fond of Daniel?"

"Hell, no; there warn't none o' us particularly fond of no one. We been cooped up along here too long."

Once more Muldoon turned his attention to another member of the sorry company. "Young man, what is your name?"

"Andy MacTeevor."

"How old are you, Andy?"

"Eighteen."

"Is your mother living?"

"Yes."

"Say, mister," interrupted Carrie MacTeevor, "I forgot to tell you somethin'. I heard Andy's grandmother scoldin' Daniel after I turned in."

"Could you hear what she said?"

"No."

"How old are you, Carrie?"

"Thirty-nine."

"Esther, did Daniel quarrel with his sister the night of the murder?"

"Daniel's only sister died more 'n forty year ago. I was tellin' my sister it seemed nigh onto a hundred years since Abbie passed on."

"Have you done anything about notifying Daniel's other relatives?"

"His father an' mother died over forty year ago, just before his sister Abbie went; and he never had no other kin except what's on this ship."

"But you were related to him."

"We're all related—all what was on this ship."

"How many was that?"

"Five."

"Was Daniel married?"

"Yes."

"And his wife is still living?"

"Yes."

"That would be his first wife?"

"He never had but one. They couldn't have been but one woman in the world fool enough to marry Daniel MacTeevor. She cast a vindictive look at the other woman."

"Andy," continued the Inspector, "what other relatives have you beside those on board this ship?"

"Just a great aunt," replied the youth.

"And now, Esther, just one more question. Do you know who committed this murder?"

"Yes, but I won't tell. You couldn't never drag it out of me."

"I shan't try to," Muldoon assured her.

"If Daniel had listened to me it wouldn't never have happened. I been expectin' somethin' like this for a long time."
The Mystery of the Red Star of Tarzan

by PAUL SPENCER

I. The Discovery

"The New TARZAN Novel"—this phrase on the spine of a 1938 Argosy drew my attention, a while back, in a second-hand store. Idly curious, I pulled out the magazine, and found it contained Part 1 of THE RED STAR OF TARZAN. This novel, as every schoolboy knows (or thinks he knows), was the serialization of TARZAN AND THE FORBIDDEN CITY. But it occurred to me to wonder why the "red star" in the title, since there is nothing about a red star in the book? I started to examine the serial for an answer.

At once I found a clue—a prelude, omitted from the book, in which a witch-doctor has a vision of Tarzan:

"He was big in the smoke," the witch-doctor said, "and red was the danger—star behind him. . . . The red star will lead him to a world long dead and forgotten. . . . The fire—star—"

Was this explained later in the serial? I skimmed further, and noted in that installment only passing reference to it—no explanation. I did find, however, a scene—omitted from the book—in which the airplane carrying Tarzan and his friends encounters a pterodactyl. Then a scene—omitted from the book—in which the villain, Aton Thone, is attacked by a dinosaur. By that time I had decided I must have the magazine.

At home I compared the serial installment with the opening chapters of TARZAN AND THE FORBIDDEN CITY. Despite the general similarity in plot, incident after incident was different. And stylistically the contrast was even greater: scarcely a sentence in the serial was the same as in the book.

Was it possible that such extensive variation persisted through the whole story? With some difficulty (and generous help from Vern Correll), I obtained the other five installments. Line by line, I compared the serial with the book. Except for an occasional shared sentence or paragraph, each story was a separate piece of writing throughout!

For those who have not made this discovery themselves, I'll explore the contrast in detail. And I'll examine some remarkable questions it raises.

II. The Narrative

The broad outline of the two stories is the same: Tarzan's old friend Paul d'Arnot enlists his aid in a search for Brian Gregory, who has disappeared while hunting for the forbidden city of Ashair and its treasure, the Father of Diamonds. The expedition led by Tarzan includes Brian Gregory's father, his sister Helen, and a mysterious girl named Magra (actually an agent of the evil Eurasian, Aton Thone, and his East Indian henchman, Lab Taask). The villains as well as the protagonists reach the crater of the extinct volcano Tuan-Baka. Its outer walls are haunted by survivors of the age of dinosaurs. Inside is Lake Horus, on opposite sides of which are two warring cities of a primitive civilization: Ashair (ruled by Queen Akta) and Thobos (ruled by King Herat). Under the lake is the temple of the god Bruler, and the Father of Diamonds. After many vicissitudes, Tarzan frees Brian Gregory from Ashair, the evil Queen Akta is deposed, and the Oriental villains are killed.

The book has Thome and Taask kidnap Helen Gregory, hoping that by using her as hostage they can persuade her father to give them his map of Ashair. The serial contains no such episode—for when the story opens, Tarzan has already stolen the map. The white hunter, Wolff, who is so leathesome in FORBIDDEN CITY, does not appear in RED STAR at all. In the book, Tarzan's group is attacked by apes, who steal Magra; Tarzan rescues her by defeating the king ape. The serial omits this, but has the same apes steal Helen from her cannibal captors; Tarzan rescues her in the same way as he rescues Magra in the book. (FORBIDDEN CITY has Helen rescued from the cannibals by Tarzan.) Then there are the two dinosaur episodes previously mentioned, which appear in the serial only. And many other differences occur in the same portion of the story.

Similar key facts are brought out in both versions of these episodes, but often by very different means. Generally, FORBIDDEN CITY does the job much more simply and directly than RED STAR, which tends to be discursive and repetitious. This contrast is less true of the later chapters. Still, numerous discrepancies do exist.

One of the most impressive differences is in the treatment of Queen Akta. In RED STAR she is presented much more fully and dramatically. Compare the ways she is first described:

Forbidden City

As the two men were led forward and halted before the dais, they saw a handsome woman, apparently in her early thirties. Her hair was so dressed that it stood out straight from her head in all directions to a length of eight or ten inches and had woven
into it an ornate headdress of white plumes. Her
mien was haughty and arrogant as she eyed the pri-
soners coldly, and Atan Those read cruelty in the
lines of her mouth and the latent fires of a quick
temper in the glint of her eyes. Here was a woman
to be feared, a ruthless killer, a human tigress.

**Red Star**

Never before on all the bread earth, he thought,
had there been such a woman. Her beauty was a glow-
ing emanation, a blaze of trumpets and a singing
flame that merged in his brain. Dark eyes, raven
hair, red lips for wild kissing. A flesh of rose
and old ivory, and a body moulded of yielding mar-
ble, silken soft.

... Her hair was so dressed that it stood behind
her head like a dark halo. Entwined in it were
white plumes and gleaming jewels to form a crown.
One white hand rested in her lap, the fingers gripp-
ing the stock of a seven-tongued whip, tipped with
metal. The other hand held an amber mouthpiece
from which a tube depended. She put the amber be-
 tween her lips, and William Thade put the bowl of the
hookah beside the throne. Gray smoke wisped from
her nostrils.

Neither whip nor hookah ever appears in the book. In the
RED STAR version, the whip frequently comes in
handy as a symbolic prop, suggesting Atka's cruelty.
For example, there is the scene in which Atka punishes
the Ashairian noble Akamen for failing to capture Tar-
san and his friends.

With feline grace she stood erect. The flow
of her dark hair was storm-clouds framing a face of
animal passion. She struck with the seven-tongued
lash, and struck again. Like clamsarks on the face
of Akamen the livid welts stood out. Blood ran fur-
rows through them and fell upon his tunic. The
wings of the golden bird embroidered there were
tipped now with crimson.

"Witness, all you of Ashair:" Atka cried. "By the
ancient law I rule and none has the power to gain-
say my commands. Do you hear my words, cousin? Are
they understood?"

This is a more colorful and barbaric woman than the
Atka of FORBIDDEN CITY. Indeed, the whole incident is
omitted from the book. The larger episode of which it is
a part—Atka's reaction to news that Tarzan and his
friends are at large in Tsun-Baka—is handled in the
book in four terse paragraphs. In the serial, it is
much longer and highly dramatic, opening with another
lurid picture of the Ashairian queen:

... Upon her black throne the dark queen sat,
anger personified.

A flowing skirt covered her from the waist; her
upper body was bare. Her raven hair cascaded to her
shoulders, unbrushed and unadorned. Her right hand
gripped the jewelled stock of a seven-tongued lash
that switched back and forth, down and across, with
the ominous rhythm of a cat's tail.

Atka's cruelty is revealed in this scene with a sub-
tle grismness that Burroughs might have done well to
retain in the book. Atka tells the lieutenant of an
Ashairian galley that he must be punished: "You know
our laws of Ashair, 0 Janer, son of Kramn. Come back
with your ship or die with it -- such is the old de-
cree." She calls forth a warrior of her guard and has
him take Janer to death and wounds him: "Well
thrust, 0 Gather, son of Kramn." (Emphasis mine.)

When the two stories present Atka in an identical
situation, the RED STAR version is far more vivid. A
ceremony in the temple of Bruror is interrupted by the
entrance of the queen:

**Forbidden City**

... A plumed warrior entered from the long cor-
rider and announced the coming of the Queen.
Instantly the music and the dancing stopped, and
the dancers took their places about the throne of
Bruror. A loud fanfare of trumpets bellowed from
the mouth of the corridor, and a moment later the
head of a procession appeared and marched down the
center of the room toward the dais where Bruror sat.
Surrounded by warriors, the Queen moved majestically
to the dais, where she took her place in a second
throne chair that stood beside Bruror's.

**Red Star**

As the mad rigadoon had reached an unsurpassable
climax of movement and clamor, came one shuddering
stroke of the gong that made every previous sound
seem like the merest whisper. And there, revealed
in a blinding shaft of pure white light, stood Atka,
her crimson skirt a swirl of flame around her, the
hand holding the seven-tongued lash uplifted.

In the midst of the dead silence that followed,
the queen moved slowly forward, locking neither to
right nor to left, and mounted the throne beside
Bruror.

The FORBIDDEN CITY version has Atka practically swall-
owed up in her surroundings; in RED STAR she stands
out in bright colors (notice the use of the spotlight).
Again, Atka's interview with Tarzan provides a strong
contrast in the two stories. In RED STAR, the
Ashairian siren is presented almost lyrically:

Queen Atka was alone when Tarzan was brought be-
fore her. The bright red skirt caught in the
heavily jeweled belt was her only garment. Her
dark hair fell over her shoulders and lay like a deep
shadow against the smooth whiteness of her flesh.
There were no jewels around her throat, nobrace-
lets on her rounded arms. No crown or fillet shin-
ing in the jetty darkness of her hair.

Here is the proxy equivalent in FORBIDDEN CITY:

Atka sat upon her lava throne surrounded by her
white plumed nobles, as the Lord of the Jungle, his
hands still bound behind him, was brought before
her.

Other appearances of Atka in RED STAR have a similar
intensity, lacking in the book.

Another memorable difference is in the arena se-
quence, in Thobos. Instead of having Tarzan fight two
lions at once, as in the book, RED STAR introduces an
antagonist that is very indeed: the Mogro-Mu. Pre-
cisely what this is, we are never told; but enough is
suggested to be disquieting.

Almost shoulder high, the Mogro-Mu had the smooth
dark coat of the black panther; but it did not have
the snubbed snout of the great cats. Instead, its
face was flat under the silky hair and a pointed
red tongue lolled between even redder lips. It had
no vestige of a tail.

The creature skidded docilely, sniffing, then
reared on its hind legs and looked down at him out
of green eyes whose pupils were round rather than
the split pupils of the feline. Thin paws that
showed the points of sheathed claws, razor-sharp,
reached forward like tentative hands. The red lips
mumbled soundlessly.
Tarsan's fight with this monster is gruesome, but in victory he encounters something even more shuddersome:

... He stared with horror at the head lolling drunkenly on the turf, the glaring eyes, the lips that moved as though mumbling for long-forgotten words; stared with mounting horror, for the look on the strange flat face of the Negro-Mu was that of a prisoner at long last set free.

The Lord of the Jungle placed a foot upon the creature's neck. Fists drumming on taut chest, he raised his face to the sky and voiced the weird victory cry of the bull ape. But he did it without enthusiasm, for deep in his heart Tarsan knew that the thing he had conquered was at least part man...

Against this, those two lions seem rather mild!

Different, too, is the scene in which Ashair is conquered by the forces of Thobos. Here, I think, the book version is stronger. In the serial, Tarsan views the action from a distance, and partly in his imagination:

From the opening in the cavern at the cliff-top, Tarsan watched the galleys of Herat sweep upon Ashair. He saw the men of Herat scale the walls... Proud Ashair, that had ruled Tuen-Baka so long, was falling.

What, then, of Queen Atka? ... Fury would have sharpened her face at this turn; with the lash of despair rag she would be goading on her warriors to a futile death.

... The gates of Ashair had opened. In her throne room, now, he knew proud Atka had been humbled.

FORBIDDEN CITY has Tarsan in the thick of the fray:

As the two fleets met amid the war cries of the opposing warriors, quarter was neither asked nor given, for each side felt that this was to be a battle to the death that would determine for all time which city was to rule the valley of Tuen-Baka. And while this bloody battle was being waged on sacred Horus, another battle was taking place before the gates of Atka's palace, as Tarsan sought to lead his little band into the presence of the Queen. It was Atka he sought, for he knew that with Atka in his power he could force the Asharians to give up their prisoners — if they still lived.

Finally they overcame the gates, and Tarsan forced his way at the head of his company into the throne room of the Queen.

The contrast between the two versions holds right up to the end. In the book, when Thome realizes that the supposed Father of Diamonds he has gone to such great lengths to steal is merely a lump of coal, he screams, clutches his heart, and falls dead. In the serial he cries, "No! No! It is not! It is the Father of Diamonds — and mine!" and he flees with it. Pursued by Tarsan's apes, he plunges over a cliff to his death. And though both versions end with an ironical comment from Tarsan, the comment differs. In FORBIDDEN CITY, when Brian Gregory points out that the lump of coal is, in a sense, the Father of Diamonds, Tarsan observes, "Men are strange beasts." In RED STAR, his reaction is more elaborate:

"Yes," said Tarsan. He waved a hand toward the great apes. "And if your wise men are right, it was at the last the Father of Men who sought it... ."

In both stories, much use is made of the familiar Burroughs device of skipping back and forth among the adventures of several sets of characters. But in FORBIDDEN CITY, this narrative counterpoint is speeded up; long episodes in RED STAR are broken down in FORBIDDEN CITY, into groups of quick scenes interspersed with similar snippets from other episodes. This often has an intensely dramatic effect, as in the sequence in which the scene shifts rapidly from the fight between Helen, awaiting Tarsan in a room filling with water, and the gradually approaching rescuers.

Further, the longer episodes of RED STAR tend to make one lose track of what is happening in the sequences one is not following at the moment. In FORBIDDEN CITY, one rejoins each set of characters so frequently that one can keep up with them all. Another advantage is that whereas in RED STAR Tarsan loses sight of Tarsan for long periods, in FORBIDDEN CITY the fast changes of scene bring him frequently to the fore.

I'll refrain from citing further differences in the narrative. Take my word, there are plenty.

III. The Style

The differences in style are even more extensive — and more puzzling.

As I've stated, serial and book are almost entirely separate pieces of prose. Occasionally the book lifts a sentence or a paragraph from the serial — but even then there is likely to be some alteration. A random example: the book has a sentence, "As the radio beam guides the flyer, the drums of the Burroos led Tarsan as he swung through the trees toward their village." This is from the serial — except that the serial says, "As the radio beam guides the flyer, the chanting drums of the Burroos led Tarsan through the trees." And the sentences following are completely different.

Is there a pattern to the changes in wording? Indeed there is: the transformation of one literary style into another. Now, variation in style is by no means unusual in Burroughs' works. Comparison of various ERB stories quickly reveals a chameleon-like ability to alter verbal technique from book to book — though a basic Burroughs flavor is common to them all. There is, in fact, a general trend from early Burroughs to late. The early books (those from which examples of Burroughs' style are usually chosen) tend to be phrased with an elegance that now seems rather old-fashioned, and they often make use of long, involved sentences. The tone is usually sober, even when the wildest implausibilities are being recounted. The later stories become increasingly whimsical and satiric in tone, sometimes to the point of seeming tongue-in-cheek. At the same time, the sentences get shorter, the phrasing more economical. In general, RED STAR is in the early vein — serious and rather prolix — and FORBIDDEN CITY is in the late — sardonic and concise. Compare these descriptions of the same event:

Red Star

His mighty hands gripped the bars.

For a few moments there was not the shadow of movement. The ape man seemed to be standing perfectly still, his hands quietly grasping the bars. Even Herkuft standing beside him could see few signs of the tremendous conflict between iron and muscle — between Tarsan's terrifying, silent strength and the ape-man's back swelled and throbbed ever so slightly. The muscles that ran along his chest and back and arms seemed to be strung beneath his flesh with the tension of cables. Slowly his lips pulled back over his teeth and a deep line creased his brow. The light began to shine dully on the sweat that oozed out on his skin.

Yet he made no sound, performed no strong-man heavings. He used his muscles with the utmost economy. Herkuft's mouth sagged open. For the stout bars were behaving as if they had been exposed to terrific heat. They began to sag and bow — the gap
between them slowly widened.

The ape-man flashed Herku' a triumphant smile. He let go the bars, spat on his palms, refilled his lungs, and once more attacked the iron. Wider and wider spread the bars — and in an incredibly short time Tarzan could slip through the widened aperture.

Forbidden City

... He seized two bars. The muscles stood out upon his shoulders as he exerted his strength upon the insensate metal. Herku watched, breathless, and filled with doubt; then he saw the bars spreading apart, and a moment later saw Tarzan squeeze between them.

So much for concision. As for the sardonic quality, consider these two descriptions of the same event: RED STAR says, "Despite Thorne's clutching grasp, the great ape easily snatched the casket from him;" FORBIDDEN CITY has, "He snatched the casket from the screaming man as easily as one man takes another's wife in Hollywood."

The passages about Queen Atka, cited above in connection with content, illustrate further the variation in technique.

This can be followed all the way through both stories. Indeed, if as seems nowadays to be the case—a style is to be valued chiefly for its concision, a close comparison of these stories is practically a course in prose construction. It shows again and again how to tighten phrases, discard unnecessary words, substitute (to paraphrase Mark Twain) the lightning of the right word for the lightning bug of an approximate one.

Yet RED STAR has its own virtues. The enjoyable dry humor of FORBIDDEN CITY occurs in it only rarely—but the serial has far more glamour, warmer emotion, richer detail. (See the bar-bending episode above!) Perhaps this is offset, especially in the later portions, by a tendency for the action to drag. That, of course, is up to each reader to decide.

There is also, in the prose of RED STAR, a melodious, poetic quality not to be found in the book. It is fashioned from several rhetorical techniques — rhythm, contrast, assonance, alliteration. Here, for example, is a veritable orgy of alliteration, a feast of f's and t's: "Tarzan had traveled fast and far. Three days back he had bidden farewell to giant Tantor and had taken to the trees." A second helping, with a sauce of assonance: "He was about to lead the tribe in search of sustenance, when the sound of loud screams reached his ears." (Notice the predominance of "ee" and "ow" sounds, as well as the repetition of "l" and "s").

Not every sentence is constructed this way (it is less characteristic of the later chapters, too); but it is frequent enough to be striking.

Here is a sentence that stays in my mind both for its music and for the subtle accuracy of its verbal image: "The black slaves bent steadily to their ears, and the dark mouth of the tunnel loomed larger with each forward sweep."

In summary, the serial tends to linger over details (often melodiously), for the sake of vividness and of dramatic atmosphere; the book seems more concerned with keeping things moving, scattering ironic commentaries along the way.

IV. The Mystery

Why are the two versions so different, especially since both appeared in the same year? One possibility suggests itself at once: RED STAR may have been written much earlier than it was published. When Burroughs saw it in print, he may have felt it was no longer satisfactory, and so for book publication he rewrote it in his latest manner.

This theory is appealing — but it leaves unanswered two enigmas. First, why was publication delayed so long? Was the story so bad that Burroughs was ashamed of it, or could not find a publisher? It does have major faults. Many of its incidents are hackneyed; the action, involving several groups of characters, gets confusing; the hidden land of Tsuen-Baka is presented with sketchiness unworthy of the creator of Pellucidar, Barsoom, and Pal-ul-don. Delays based on inferiority is certainly conceivable. But hardly likely. The story, whatever its shortcomings, is a typical Burroughs narrative of the kind that won global popularity, decade in and decade out. And there are plenty of thrills, plenty of effective episodes.

Further, there is the second enigma, which the delayed-publication theory does not explain. A great deal in RED STAR does not read like the work of Edgar Rice Burroughs.

There is considerable use, for example, of a device common in much pulp fiction from the 1930's to the present, but not characteristic of Burroughs: omission of "and" between the parts of a compound verb, e.g., "He thrust a plump hand inside his shirt, brought forth a short knife."

Polish and unlike Burroughs, too, is the frequent omission of modifiers: "The Captain peered into the darkness, finger glued to trigger."

Another unfamiliar device is the use of coined verbs: "He ghosted along a great branch" — "A-doom, a-doom! husked the drums."

Pulp rhetoric appears also in the use of sentences that are not complete clauses: "While the drums
groaned. ..."—A tarmangani warrior, unafraid."—
"But the bottom of the lake — and more!"
And read again RED STAR’s initial description of Atka. Do you think Burroughs would phrase it in that turgid manner?

One outright error strengthens the impression of an alien hand in the writing: Tarzan uses "Kreeghah" to mean "surrender." I trust no member of the Burroughs Bibliophiles need be reminded that in the language of the great apes "Kreeghah" means "beware," or that the word for "surrender" is "Kagoda." This clue, however, turns out to be a red herring — for the same error is in the book!

Indeed, the situation is far from simple. Along with suspiciously uncharacteristic passages go others that have the authentic Burroughs touch. Many of the latter recur in the book — but many do not. One even finds passages in which Burroughs and non-Burroughs appear cheek by jowl, like this:

[The king-ape] stared at the moon as a cloud wisp trailed across it, then lowered his close-set blood-shot eyes to the arena again. The hackles of his neck lifted and broad nostrils widened as he snarled. For at the edge of the Dum-Dum altar stood the straight figure of a tarmangani, naked but for a loin-clout. Motionless and silent that lean white figure waiting.

This might easily pass for authentic Burroughs—except that last, verbless sentence.

The more I study RED STAR, the more strongly I feel that it is not wholly the work of Edgar Rice Burroughs. Much of it seems the product of a polished, professional pulp writer of a more recent generation. Yet the Burroughs flavor—often the "old" Burroughs flavor—is there as well. Two possibilities occur to me. Either the entire story was ghost-written by someone who could do an excellent imitation of ERB but who could not maintain it consistently, or else the story is a collaboration between ERB and someone else. (He may even have had more than one collaborator, for there seems to be a slight shift in tone in the later chapters.)

Perhaps ERB wrote the whole story, but the editor of Argosy felt it was a little old-fashioned, and touched it up here and there, or hired someone to do it. Or somebody ghost-wrote the first draft, and Burroughs revised it. In any case, when book publication was in prospect, Burroughs must have decided to rewrite the story in order to make it entirely his own work.

Another school of thought is represented by Maurice Gardner. He has suggested in Norb’s Notes that FORBIDDEN CITY is the ghost-written version, and RED STAR the authentic Burroughs!

Exasperated with this puzzle, I recently wrote to John Coleman Burroughs at Edgar Rice Burroughs, Inc., asking for an explanation. But the cordial reply (from Hubert Burroughs) merely expressed astonishment at learning of the difference between the two versions. Officially, at least, Burroughs’s own sons are as baffled as I am.

Anyone have any facts or theories to contribute?

V. Conclusion

This all began, you may remember, with my curiosity about the "red star." What, after all, did the red star turn out to be?

Another enigma!

After that initial vision of the "danger-star," the only references to it occur in the first two installments. "A strange red glow. . . . The Red Star, the natives called it. . . . Such a glow was said to mark the mountain of Tuen-Baka." Tarzan sees this glow in the distance as the mountain is approached. When Tuen-Baka is reached, however, there is no further mention of star or glow. Nowhere is this light explained — unless I’ve missed some subtle point which a more alert reader may be able to identify.

I can, however, suggest an explanation. Indeed, I think, is a concept used by Jules Verne in For the Flag. Verne suggested that persons who desire to inhabit an extinct volcano in secrecy might frighten away possible intruders by building fires that would create a reddish glow suggestive of imminent eruption. Some such arrangement, I suspect, was the intended explanation of the "red star."

Perhaps Burroughs’s recognition that the point had been lost sight of was what initiated his revision of the story. (So also might belated realization that the term "red star" had Bolshevik connotations!)

Be that as it may, THE RED STAR OF TARZAN remains a mystery. Whether it is better than TARZAN AND THE FORBIDDEN CITY, inferior to it, or of equal quality is a matter of individual taste. Beyond question, though, it makes fascinating reading for any Burroughs fan.

Somehow, sometime, somebody must make it more widely available.
El Paso, Texas—July 14th & 15th, 1963 (GWS)—Jock Mahoney, the 13th heir to the screen role of Tarzan of the Apes, stepped off the plane here on the first leg of a 60-city tour to promote his most recent film, TARZAN'S THREE CHALLENGES.

El Paso newsmen gathered at a press breakfast near the airport and met the 44-year-old former stunt-man who succeeded Gordon Scott to the mantle of America's all-time favorite myth-hero. Mahoney, brown as a nut, his blonde hair gray-streaked and again growing long, was dressed in distinctly un-Tarzanish attire. His light-green, tightly-tailored summer suit seemed to reflect dollar signs and commensurate with the city's 90-plus degree weather, he carried his coat. Between scrambled eggs and grapefruit, Mahoney granted on-the-spot short interviews and made arrangements for others beside the pool or in his suite at the swank Hilton Inn. After I met and talked to Mahoney briefly at the breakfast, arrangements were made through his press-agent for a lengthy taped talk in the afternoon with John Chapman and myself, both reporters for KTSM Radio-TV (an NBC affiliate).

Poolside at the Hilton Inn that afternoon was like a Frankie Avalon open-house: a great thundering herd of teen-agers crowded into the place like the last water on earth was in the Hilton pool. Mahoney signed autographs for the wide-eyed on pictures, phonograph records, and any scrap of paper his eager young public could find on short notice. He seemed to enjoy every minute of it, even the endless posturing for amateur photographers whose Brownie box cameras always seemed to fail at the last minute. Mahoney also succumbed to demands that he take a dip in the pool and off the high-dive board, he performed like the swimming champion he really is. Bouncing as much as six-feet above the board, the sinewy athlete clove the water perfectly with enough momentum to carry him underwater the length of the enormous Hilton pool. His diving and swimming styles were Olympic, beautifully coordinated and without ornamentation. All this too, with television photographers recording his every move.

The interview began about 3 o'clock and in all it lasted nearly an hour, although Chapman and myself actually cut out only about 20 minutes of radio tape. The remainder of the hour was taken up with delightful anecdotes and repartee on the part of Mahoney, and off-the-record question-and-answer sessions. Mahoney is a remarkable man and perhaps one of the most frank and honest actors around today. His knowledge of Burroughs and the books is creditable and he firmly believes in the "new" Tarzan approach as conceived by his producer, Sy Weintraub. Drinking black coffee and smoking mine and his own cigarettes, Mahoney was as casual, as candid, and as communicative as anyone I've ever met. He is also deftly publicity-concious without being obnoxious—a great compliment coming from any reporter.

The following script was taken directly from the radio tape with minor alterations: side-comments, unless interesting, are not included nor are introductions (the interview was broken up into four five-minute segments) which are repetitious and largely uninteresting. Questions, which on tape were sometimes rambling and involved have been simplified, since it's the answers that are important. Some commonly-known information has been excluded for obvious reasons. I hope the leisureliness and vitality of the interview remains. Mahoney himself mentioned the BB's first. I asked him something before the tape began dealing with Tarzan in the books versus Tarzan in the movies. "Are you a Bibliophile?" said he.
Q: Jock, first of all tell us something about yourself. Are you married?

A. Yes, I'm very happily married to a little black-headed Irish girl from Houston, Texas. We have a boy 19 in college studying math, he's an honor student and a gymnast at Berkeley. We have a 16-year-old daughter who thinks she wants to be an actress and then there's the boss of the family, "Princess," who's ten.

Q: How did you get into the acting business?

A. In high school, I guess, doing the Gilbert and Sullivan type of thing, you know—Ralph Backstraw and singing the tenor lead, I was always bothered by feelings of inferiority and insecurity in that area and when I finally got into pictures, I was so bad an actor, I became a stunt-man and got over most of my psychological problems. I then began doing small parts, then bigger parts, then leading roles. Now I can do leads and all my own stunt work.

Q: Vital statistics?

A. Right now, I'm a very soft 200 pounds. I was so sick in Thailand the last eight days of the picture, I dropped 40 pounds, ran a fever of 102 to 105, had pneumonia, amoebic dysentery, dengue fever, and I couldn't sleep. I haven't been able to work out much either. Last night in the pool here was the first time I have exercised since coming back from Thailand. I'm sixty-four, forty-four years old, a Chicagoan of French, Irish and Cherokee descent.

Q: Where do you live?

A. In Tarzana. I used to live in Encino in a house with a great tree in back and a 50-foot rope. If I wanted to leave the second story without going downstairs, I'd take the rope exit. I was preparing, even in those days, for this role. Of course it was unknowingly. Then I bought this house in Tarzana. Six months later I found out I was going to do the role, so the address worked out fine.

Q: Do you live near the Burroughs Corporation?

A. I'm four blocks from the office and my daughter goes horseback riding with Burroughs' grand-daughter. It's a lovely community, named, of course, for Mr. Burroughs' greatest creation. He had a large ranch there at one time. Tarzan is one of the classic characters in literature. It's funny, but traveling around the world in this role, I've found out that there are two American words known throughout the civilized world—"cowboy" and "Tarzan."

Q: How do you keep fit?

A. Well, I'm a great believer in mind over matter and really have no trouble keeping fit or maintaining my weight. I put on a few extra pounds when starting a Tarzan picture since I always lose weight in this role. I swim and dive and exercise religiously. I still do work on the flying trapeze at 71. It's a matter of staying with it. A lot of men simply do not have the facilities... working in an office or something. On weekend they might play a little golf or something, and it's not their fault anymore than it's mine being in a business where I can stay in pretty good physical shape.

Q: What are some other of your acting credits?

A. On television, two series leads: "The Range Rider" and "Rancey Derringer." In pictures: "Away All
Q: What do you think of your role as Tarzan? Do you like it?

A. It's one of the roughest roles I've ever played. Of course, I do all my own stunt work, but from a dramatic standpoint too. Tarzan is a difficult role—you know he's going to win—so the difficulty is to play this great character in such a way that you keep him within the realm of reality and simplicity. A fabulous man; he spoke seven languages and was really a British nobleman—Lord Greystoke.

Q: What kind of man was Tarzan as Burroughs conceived him?

A. The kind of man everyone would love to be. A gentleman, as well as a savage. A man who asked nothing, took nothing, but was utterly happy in the simplicity of his surroundings.

Q: Tarzan is a sort of institution?

A. Yes, and I'm proud to be a part of it. It's an institution that twelve men before me helped perpetuate, and of all characters in fiction, you can rest assured Tarzan will continue on.

Q: How long do you hope to play the part?

A. Just as long as I can hold together. It's rough though. In "Tarzan's Three Challenges" an elephant picked me up and threw me into the air. I landed on a rock and made mincemeat out of my right foot. Getting on an eleven-foot elephant and riding him 35 miles an hour because he's frightened is something. That's the only way we can produce these elephant charges—using firecrackers, shotguns and 500 natives beating oil drums. The minute the noise stops, the elephant stops. That first ride is a wing-dinger.

Q: You mentioned between tapes something about an old temple in Cambodia that Weintraub seemed interested in. Any indication that it might be the next location?

A. We have it in mind. I'd really love to do it, not only from an educational point of view, but from an entertainment angle. Backgrounds are of prime importance in a Tarzan picture and the jungle is growing right up to this old temple. It was orig-

---

**MORE MAHONEY AUTOGRAPHS**

_A BUSY BREAKFAST_

inally re-discovered, I think, in about 1859, and no one knows what happened to the people that built it or inhabited it. It's called Ankor Wat. (EO: ERB was so interested in the Khmers and their ruinous cities that he based his novel, JUNGLE GIRL, on them.) There was a larger temple adjacent to it but it's in a complete state of disrepair. Ankor Wat, though, is in a fabulous state and reconstruction is still going on. There's a moat around it that's a hundred-yards wide. A mile-square city, can you imagine it? It's an enigma along with Atlantis, No. and the Easter Island statues.

Q: Any other places being discussed?

A. Brazil has been mentioned, but I really don't know myself where the next Tarzan film will be made.

Q: I assume Cheetah, Jane and Boy are not due for immediate revival in the Jock Mahoney Tarzan films?

A. You're right. I left them back in Kenya. Sy Weintraub has different ideas about Tarzan than his predecessors. Doing these films in the far corners of the globe, it would be awkward to take a wife, son and chimp with me.

Q: Well, Jock, all good luck in this series. I know "Three Challenges" will be another great success.

A. Thank you.

EO: As this BB goes to press, a new Tarzan for the TV series has not been selected and there is the possibility that Mahoney will do the new Tarzan feature. Jock will not accept another TV role at this time.
JOCK POSSES, PENS AND PERFORMS FOR THE FANS.

Q: Before asking you about "Three Challenges", I want to ask if you're interested in the Burroughs books.

A. Yes, greatly. Not only from the Tarzan standpoint but I also like his science-fiction books. Burroughs had a fantastic, fertile imagination. He rates, in my book, right along with Jules Verne.

Q: There's a current revival in the books isn't there?

A. Well I think the last picture, "Tarzan Goes to India," was so up-dated, what with Tarzan talking as I'm talking to you now, and the fact that we made it for adults as well as for children, this might possibly have something to do with the resurgence. I hope it did. Yes, this is "Tarzan Month" and Ballantine has issued the first ten Tarzan books in soft-cover, matched editions, for 50-cents each. Ace pocketbooks too--over 20-odd titles, I believe.

Q: You mentioned the Burroughs Bibliophiles earlier?

A. Marvelous people. Great to talk to since they're the Burroughs authorities. Anything you want to know about Burroughs and his books...they can give you page, chapter and verse. They've been a great help to me.

Q: You are the 13th actor to portray Tarzan in films?

A. Yes, and in the 31st picture. The first was in 1918 with Elmo Lincoln.

Q: Was there any actor preceding you in the role that you particularly admired or who influenced you?

A. Well, I was always very close to Johnny Weissmuller. I also knew Buster Crabbe, Lex Barker, and I did Gordon Scott's last picture with him. I was the "heavy" in that one.

Q: Did that have anything to do with your eventually going into the role?

A. It did with the producer, Sy Weintraub. Scott had never played anything but Tarzan pictures and he wanted to try his hand at something else. So he gave up the series. I had nothing to do with his leaving the role; of course, he did it of his own volition. He went to Rome to do the same type thing Steve Reeves is doing. As a matter-of-fact, he has made a picture with Steve Reeves.

Q: Don't you think that the Tarzan pictures and the strong-man pictures that Reeves has done, has put entertainment back in the movies?

A. Yes, but I think you are going to find sick pictures all the time. For instance there's a picture coming out soon that just isn't for me. It's called "Toys in the Attic," a great stage show in New York, but rather than see a depressing picture like that, I'd rather see a movie like "Flipper" which is about a dolphin. It has all the pathos, the drama, excitement, good acting, that good entertainment should have. Sex and sadism is here to stay--and it has been before the Bible--but for me, it's not important or even desirable in what you call "entertainment."

Q: What about your most recent picture?

A. Shot entirely in Thailand and in one scene you'll see a baby elephant that'll steal your heart. Woody Strode is the antagonist, a tremendous athlete at UCLA in football and track. You may have seen him as a professional wrestler, or in a number of pictures where he plays a gladiator. Fantastic physique--and a wonderful guy. There's a Miss Japanese girl, Sue Kobicki, Ricky Dar from San Francisco who's Cantonese (I thought revolved around him). Woody's son in the picture is Mandarin Chinese, there's thousands of Thai people in it. It's a beautiful travelogue even without Tarzan. Wide screen and in color. Great.

Q: And is strode a negro? Then you're the only
Weissmuller in El Paso

Johnny Weissmuller came to El Paso via Continental Air Lines on September 25, 1963, for a brief two-day visit, sponsored by a chain of restaurants called "Vip's Big Boy Restaurants"—specializing in giant hamburgers. Weissmuller was touring the chain of restaurants as a public relations man. During his two days here, Vip's invited all the kids in the city to come to their restaurant and visit with JW, get his autograph, shake hands with him, etc. Johnny gave each kid a "Swimming Safety Book" and tips on swimming. His visit was well publicized on television (especially my studio, KTSN Radio-TV) and in newspapers. He was billed in the papers as "Johnny Weissmuller, Star of Tarzan motion pictures and the Jungle Jim television series." I met him at the airport along with two other TV reporters, and two newspapermen/photographers. Also officials from the restaurant chain. He was dressed casually in sports clothes and wore sunglasses. His hair was long, as you can see in the pix, and an odd reddish-brown color. He was delightfully horse-voiced, as in the Tarzan movies, and talked at length to reporters. I believe he was inflating a bit on the number of Tarzan pix he claims to have made—he said 25---(EC: Johnny made 12 Tarzan pix, but he considers his Jungle Jim series Tarzan pix with boots on). He appeared a bit overweight but brown and in good shape otherwise. I didn't get a chance to ask too many questions since three other reporters were competing with me. He did say he is doing p-r work and occasionally gives swimming lectures at colleges and helps train Olympic-bound young collegiate swimmers. He mentioned being somewhat orthodox in his beliefs about swimming---says he always advises the swimmer to swim on top of the water as much as possible—for speed purposes---while many coaches do not stress this factor enough. His visit was extremely successful with hundreds of kids flocking to Vip's for autographs of the world's most famous Tarzan and greatest swimmer.
"Tarzan of the Apes" made its author, Edgar Rice Burroughs, into a millionaire.

The young man in the uniform of the U.S. 7th Cavalry wiped the sticky dust from his face and screwed up his eyes against the blinding Arizona sun. He was sixteen years of age, the youngest rider in the little detachment of soldiers patrolling the vast and lonely desert lands. He was too young, though the Army didn't know it when he joined in 1891, to be serving with the toughest cavalry division in the West.

All at once the humid air was rent with war cries and from the rocks to his left he saw a white line of Apaches bearing down on him. Instantly, his carbine was out and he heard the sergeant shout: "Stand and fire!"

He did as he was told, and Burroughs, kneeling, fazed at the oncoming Indians who retaliated with gunfire and arrows. The young man saw several companions fall, but coolly continued to shoot, firing at the leader of the band, a courageous warrior who was the finest rider he had ever seen. At last the Apaches retreated to the hills. "Who was that?" asked the young man, admiringly.

"That, sonny boy," said the sergeant, "was George—-the greatest War Chief in the Apache Nation."

Years later, the young man was to write about the Apaches in two books: The War Chief and Apache Devil, both sympathetically written from the Indians' point of view. But these were not to be his best known books—-for the young man was Edgar Rice Burroughs, famous as the creator of Tarzan, lord of the jungle.

Burroughs was discharged from the cavalry when it was discovered that he was under age. He drifted down to Idaho where he worked on a ranch, living the rough hard life of the cowboy without complaint. But there was too much routine and not enough thrills to suit him, so he moved on to the Bandit of Hell's Bend and other Westerns were the outcome of this experience.

He opened a store in Oregon, found the life monotonous and the profit small, so became a railroad policeman in Salt Lake City. Even this bored him soon, so he headed for the Oregon gold-fields to become a miner. It was all mining and no gold.

By the time he was thirty-five, Burroughs regarded himself as a failure. While looking through some magazines one day, he decided to try writing.

His first book was Tarzan of the Apes. It told how John Clayton, an English nobleman, and his wife were marooned on the coast of Africa by a ship's mate of a crew. They managed to exist for a while in the wild jungle, but soon after the birth of their son, they died.

The child was found by a tribe of apes and reared by them as one of their kind. The story proved a terrific success and readers begged for more. Burroughs wrote over twenty Tarzan novels, a dozen Martian yarns, four tales set on Venus and several set in Pellucidar, the world at the Earth's core.

Apart from these he wrote "serious" novels and adventure novels of all kinds—western, detective, historical and science fiction. He sold every story and in ten years had become a millionaire. He built his own ranch called Tarzana, in California, and formed himself into Edgar Rice Burroughs Inc., a company which still exists making big profits from "hiring out" the name Tarzan alone.

He was capable of writing a full-length novel in a weekend—he did once or twice.

Over forty films were made of his books, half of these being about Tarzan. The novels were translated into nearly every modern tongue, and more than thirty million people still read comic-strips about Tarzan all over the world.

The war correspondent.

His books have never been out of print—a British publisher has been reprinting them for nearly fifty years.

At the age of sixty, during the last war, Burroughs went to the East as a war correspondent.

Those who worked with him were astonished by Burroughs' courage and stamina.

Only one novel was the result of his experiences in Java—Tarzan and the Foreign Legion, thought by many to be the best, most "sophisticated," of his Tarzan books.

When he died in 1950 at the age of seventy-four, newspapers all over the world reported his passing and millions of people who had been relaxed and thrilled by him felt the loss as if they had known him personally.

Unpretentious to the last, Burroughs wanted nothing more than to entertain. He did this and more in his Tarzan books, for his stories of the "noble savage" have enthralled the world—and the world repaid him with a fortune.

Jungle Boy in Peril

He had been reared by a tribe of savage apes, and now found himself face to face with Sabor, the lioness, one of their most deadly enemies.

Tarzan's Fight to the Death

At the same instant Tarzan of the Apes jumped to one side, and as the great cat struck the ground beyond him another death-tipped arrow sank deep into Sabor's loin.

With a mighty roar the beast turned and charged once more, only to be met with a third arrow; but this time she was too close upon the ape-man for Tarzan to sidestep the onrushing body.

Tarzan of the Apes barely had time to draw his knife before he went down beneath the great body of his enemy. Rapidly the gleaming knife struck home.

For a moment they lay there, and then Tarzan realized that the inert mass lying upon him was beyond power ever again to injure man or ape.

With difficulty he wriggled from beneath the great weight and placed a foot upon the body of his powerful enemy. Then, throwing back his fine young head he turned out the awful challenge of the victorious laul-ape.

From his earliest days this was how Tarzan had learnt to cross the jungle, swinging high overhead from branch to branch.
LA — BEAUTIFUL PRIESTESS
OF LOST OPAR, WAS TO
BE SACRIFICED TO...

SEBEK — ANCIENT EGYPTIAN
GOD OF EVIL, STILL
WORSHIPPED BY ZEALOTS.

TARZAN — FOLLOWED THE TRAIL
OF LA'S CAPTORS TO THEIR
HIDDEN DOMAIN...

WHERE HE WAS FORCED
TO BATTLE A LIVING
MUMMY, GUARDIAN,
OF SEBEK'S TEMPLE!

HE WAS DOWN, PREY
TO THE SWORD OF THE
DEMONIC MUMMY...

BUT THE APE-MAN MOVED
IN SWIFTLY, CATCHING HIS
FOE OFF BALANCE!

THE MUMMY WAS SENT
CRASHING AGAINST THE
STONE CLIFF.
THE MUMMY FELL WITH SUCH FORCE THAT ITS WITHERED ARM WAS SHATTERED! THE SWORD SKITTERED OVER THE EDGE.

BUT EVEN THIS COULD NOT ALLAY THE MONSTER'S RELENTLESS HOSTILITY! A CLAWLIKE HAND GRASPED THE APE-MAN'S THROAT.

TARZAN, CAUGHT UNAWARES, WAS THRUST OVER THE EDGE OF THE CLIFF, STILL GRAPPLING WITH HIS INHUMAN FOE!

MEANTIME, LÁ WAS LED INTO THE TEMPLE OF SEBEK, A HUGE VAULTED ROOM CARVED INTO THE HEART OF A MOUNTAIN.

"THIS LAGOON IS THE ABODE OF OUR GREAT GOD," THE HIGH PRIEST TOLD HER—"YOU SHALL BE HIS NEW HANDMAIDEN!"

A GIANT SHADOW IN THE WATER CONFIRMED THE PRESENCE OF THE "GOD"—A CROCODILE OF FANTASTIC PROPORTION!
THE FOUL WORSHIPPERS OF SEBEK HAD BEEN TOLD OF THE CAPTURE OF THE STRANGE GIRL AND NOW GATHERED TO WITNESS THE SPECTACLE TO COME.


FREEING ONE ARM, TARZAN MANAGED TO EXTRICATE HIMSELF FROM THE HORRID GRASP OF THE MUMMY.

TWO HUNDRED FEET DOWN IT STRUCK A LEDGE OF ROCK—AND SHATTERED INTO FRAGMENTS!

TARZAN HAD MANAGED TO GRAB SOME CLINGING SHRUBS ON THE CLIFF’S FACE, BUT THE FIENDISHLY ALIVE CORPSE HUNG GRIMLY ON!

THE APE-MAN KNEW THAT HE COULD AFFORD TO LOSE NO MORE TIME FIGHTING GUARDS, SO HE AVOIDED THE TRAIL, CLIMBING PRECIPICES NO OTHER MAN COULD SCALE. AS NIGHT FELL HE APPLIED HIS OBJECTIVE.
A temple guard died silently in the shadows.

The disguised ape-man emerged to mingle with the worshippers of Sebek.

In the chambers of the high priest, La met a new problem.

Although her words were foreign to Ra-Hotep, he had no difficulty in understanding her meaning.

His bleeding face twisted into a mask of hate. "So... you choose to die! It shall not be an easy death!"

Within the temple, Tarzan noted a vent in the ceiling above the crocodile head of Sebek. A daring plan is formulated.
The girl was taken into the huge idol, and up a winding stair.

La and her captors finally emerged through a trapdoor atop the crocodile skull of Sebek! As she stared in horror at the monster saurian below, she realized what ghastly fate was intended for her. The black robe of sacrifice was placed about her.

After praying to their horrid god, the priests thrust La toward the edge—but suddenly the high priest seemed to float into the air!

The second priest struck the girl in an effort to fling her to the living god, but she fell short of the edge. He lifted his sword—

A moment later Tarzan hurtled from the darkness into which the executioner had vanished!
BEFORE THE PRIEST COULD STRIKE, THE APE-MAN HURLED HIS KNIFE WITH UNERRING ACCURACY.

"HURRY," TARZAN TOLD THE STUNNED LA, "THERE ISN’T A MOMENT TO LOSE!"

A HIDEOUS SHRIEK OF TERROR WENT UP FROM THE EVIL THRONG OF WORSHIPERS...

WHILE IN THE POOL BELOW THEIR GOD HUNGRILY AWAITED HIS OFFERING.
“TARZAN HAS COME FOR ME... HE LOVES ME AFTER ALL!” EXULTS LA, HER FEARS FORGOTTEN.

AS THOUGH BY MAGIC SHE IS CARRIED UP...


THE SOUND OF PURSUIT CAME CLEAR. SUDDENLY TARZAN LIFTED LA AND FLUNG HER ACROSS THE GORGE!

THEY RAN UNTIL LA WAS NEARLY EXHAUSTED, BUT FOUND THEIR WAY BALKED BY AN ABYSS HUNDREDS OF FEET DEEP!

ON THE OPPOSITE SIDE A LARGE ROCK WAS PRECARIOUSLY BALANCED.

LOOKING BACK, TARZAN SAW A HORDE OF WELL-ARMED MEN RAPIDLY APPROACHING.

THE TOTTERING ROCK APPEARED READY TO SLIDE INTO THE GORGE, BUT...

...TARZAN LEAPED!
SEVERAL OF THE MORE FANATICAL PURSUERS LEAPED TO THE TOTTERING ROCK, ONLY TO BE SENT THEIR DOOM IN THE CHASM!

WITH A SUPREME EFFORT THE JUNGLE LORD TUMBLED THE STONE INTO THE GORGE, BALKING HIS ENEMIES.

AFTER THE FUGITIVES WERE SAFELY OUT OF THE DOMAIN OF THE CROCODILE WORSHIPPERS, LA SUDDENLY FLUNG HER ARMS AROUND HER RESCUER. "I LOVE YOU MY TARZAN," SHE CRIED IN THE ATLANTHAN TONGUE, "ONLY YOU!"

THEY MADE CAMP. MORNING FOUND TARZAN ALONE...LA HAD STOLEN AWAY. TARZAN FOLLOWED HER SPOOR—TO THE EDGE OF LOST OPAR. SHE HAD RETURNED TO THE ONLY LIFE SHE KNEW.

FOR A MOMENT TARZAN RETURNED HER CARESSES, BUT HIS HEART WAS TOO GREAT TO ALLOW HIS BASER INSTINCTS TO TRIUMPH BECAUSE OF THE BEAUTIFUL GIRL'S HONEST EMOTIONS.

"I AM SORRY," HE TOLD HER. "TARZAN'S HEART BELONGS TO ANOTHER. I CAN NOT BETRAY HER... OR YOU!"

THE GIRL, ACCUSTOMED TO TRAGEDY, LISTENED WITHOUT VISIBLE EMOTION.

The End
As I was hiking past the woods, the cool and sleepy summer woods,
I saw a guy a-talking to the sunshine in the air;
Thinks I, he's going to have a fit — I'll stick around and watch a bit;
But he paid no attention, hardly knowing I was there.

He must have been a college guy, for he was talking big and high,—
The trees were standing all around as silent as a church —
A little closer I saw he was manufacturing poetry,
Just like a Vacker sitting on a pussy-willow perch.

I squatted down and rolled a smoke and listened to each word he spoke;
He never stumbled, reared or broke; he never missed a word,
And though he was a Bo like me, he'd been a gent once, I could see;
I ain't much strong on poetry, but this is what I heard:

"We'll dance a merry saraband from here to drowsy Samarqand,
Along the sea, across the land, the birds are flying South,
And you, my sweet Penelope, out there somewhere you wait for me,
With buds of roses in your hair and kisses on your mouth.

"The mountains are all hid in mist; the valley is like amethyst;
The poplar leaves they turn and twist; oh, silver, silver green!
Out there somewhere along the sea a ship is waiting patiently,
While up the beach the bubbles slip with white afloat between.

"The tide-hounds race far up the shore — the hunt is on! The breakers roar,
(her spars are tipped with gold and o'er her deck the spray is flung);
The buoys that roll by in the bay, they nod the way, they nod the way!
The hunt is up! I am the prey! The hunter's bow is strung!"

"Out there somewhere!" says I to me. "By Gosh! I guess that's poetry!
Out there somewhere — Penelope — with kisses on her mouth!"
And then, thinks I, "O college guy, your talk it gets me in the eye,
The North is creeping in the air; the birds are flying South."

And yet, the sun was shining down, a-brazing on the little town,
A mile or so way down the track a-dancing in the sun.
But somehow, as I waited there, there came a shiver in the air;
"The birds are flying South," he says. "The winter has begun."

Says I, "Then let's be on the float; you certainly have got my goat;
You make me hungry in my throat for seeing things that's new.
Out there somewhere we'll ride the range a-looking for the new and strange;
My feet are tired and need a change. Come on! It's up to you!

"There ain't no sweet Penelope somewhere that's longing much for me,
But I can smell the blundering sea and hear the rigging hum;
And I can hear the whispering lips that fly before the outbound ships,
And I can hear the breakers on the sand a-booming "Come!"

And then that slim, poetic guy, he turned and looked me in the eye:
"...It's overland and overland and overseas to — where?"
"Most anywhere that isn't here," I says. His face went kind of queer:
"The place we're in is always here. The other place is there."

He smiled, though, as my eye caught his."Then what a lot of there there is
To go and see and go and see and go and see some more."
He did a fancy step or two. Says he, "I think I'll go with you —
...Two moons, and we were baking in the straits at Singapore.

Around the world and back again; we saw it all. The mist and rain
In England and the dry old plain from Needles to Berdoo.
We kept a-rambling all the time. I rustled grub, he rustled rhyme —
Blind baggage, hook it, ride or climb — we always put it through.

Just for a con I'd like to know (yes, he crossed over long ago;
And he was right, believe me, Bo! if somewhere in the South,
Down where the clouds lie on the sea, he found his sweet Penelope,
With buds of roses in her hair and kisses on her mouth.
Along the Shore

by Henry Herbert Knibbs

The waves come walkin' up the sand;
"Weep! Weep!" and "Hush!", along the shore,
Frettin' and teasin' at the land,
And rollin' up the smooth brown floor,
Frettin' and sayin' things galore.

One night in June I left the ties
And made a fire to boil some tea
Down on the beach; a paradise,
With nothin' round to bother me
Except the talkin' of the sea.

The stars were blinkin' big and still;
The drift-wood fire was snappin' bright;
The moon, back of me on the hill,
Was flirtin' with the summer night,
Just a-pertendin' to make light.

I had the makings and I smoked
And wondered over different things,
Thinkin' as how this old world joked
In callin' only some men kings
While I sat there a-watchin' rings.

Me? I was king of anywhere,
Feelin' away at nothing; hard.
Havin' no pet, pertis lar care;
Havin' no trouble, or no pardi;
"Just me," fill up my callin' card.

The waves come walkin' up the sand;
"Weep! Weep!" and "Hush!", along the shore;
Funmin' and frettin' at the land,
And rollin' something up the floor;
Frettin' and sayin' things galore.

Something — The moon was growin' bright
And cold and high and big and round; —
Something that floated limp and white;
Something I wish'd I hadn't found;
A woman in the moonlight, drowned.

And then I saw that she was young;
Was pretty-dressed and not long dead.
Her hair was black and thick and hung
Just like a cloth wound round her head.
"Weep! Weep!" and "Hush!" the ocean said.

No storm had lately been that June;
There was no sign of wreck of boat,
But shinin' in the rising moon
I saw a locket on her throat,
And in the locket was a note.

The note I read close to the flame;
— The fire with some fresh wood I fed —
Just one word, and below, a name;
— Close to the fire a-dancin' red —
One word, "Good-bye!" the locket said.

I thought I knew her story then,
For she was pretty-like and sweet;
"Good-bye!" I stooped and read again,
I crossed her hands and made her neat;
Then shakin' I got on my feet.

I might 'a' left her there for such
As come and stare to see next day;
But thinks I, I can do this much;
I'll hide her from what folks will say,
Guessin' at why she went away.

I buried her there in the sand.
"Good-bye!" I said for her once more.
I left the locket in her hand;
The waves were sayin' things galore;
"Weep! Weep!" and "Hush!" along the shore.
Born January 10, 1922 in Brooklyn, N. Y. Resided in Queens Village, N. Y. until the age of eight. As long as I can remember, drawing was my one and only love, and to this day I can clearly see my old kindergarten teacher, Miss Daisy Stanford, and recall the encouragement she gave me at the ripe old age of five. I am sure that had it not been for her interest in conjunction with the tolerance of my mother and father, I more than likely would never have continued with such fortitude on the road to a professional career. One of my earliest thrills was to meet the famous old illustrator, Robert Leigh, through the kindness of Miss Stanford. As I recall, that gracious lady had brought some of my kindergarten sketches of Indians and cowboys for Mr. Leigh to criticize, and he was very generous in his encouraging comments. Strange how those memories flash back from time to time as inspiration. I’ve learned much in looking back at that wonderful period and whenever youngsters call on me for advice, I can do nothing greater, I am sure, than give every encouragement possible.

A year after the fatal crash of the Stock Market, in 1930, my family moved to Manhasset, Long Island. It was here that I received my grade school and high school education. Of course, drawing still occupied every free moment I could find...that is until my mother decided violin lessons would be just the thing for her offspring. Bequadringly, then, I consented to tote the fiddle back and forth from many lessons at the Manhasset school. I pride myself on my aliveness in shedding the cat-gut in deference to a dented trombone which lay idle in the music room, awaiting the caresses of an embryo Tommy Dorsey. That transition played an important role in later years, for as the musical ear developed, so did a desire to play in a dance orchestra. This dream was realized when I reached 17, and for many months I played 5 nights a week with a very fine band in a spot out in Westbury, Long Island. The call to arms, my future wife’s that is, put a sudden halt to any ideas of a career along that line, however, and my choice between art or music ended then and there.

During high school, I was fortunate in securing the post as cartoonist for the school paper. Through this keyhole, I gained valuable experience in sketching students and teachers from life. Then, in the fall of 1935, our local weekly newspaper called on me to draw my impressions of the damage done by the hurricane of that year to our local community. It went over pretty well, and within a week I had signed to do a weekly "local personality" three-column cartoon. It never failed that the Monday morning deadline suddenly struck on the day before. As a result, the blessed Sunday morning sleep of many Manhasset residents was interrupted by my cheerful knock at the door in order to make a sketch. This excellent training ground, with pay believe it or not, continued for some five years. How many gray hairs must I have given Mitch Luther, the editor, during that time. I can only admit that today he sports a black one!

The fortune of studying anatomy with the immortal George Bridgman came to me in the fall of 1939, after graduation from high school, when I entered the Art Student’s League in New York City. How that man could draw the human figure! If he were alive today, I would surely take a refresher course under his watchful eye. Before six months had passed, someone had suggested I try to break into the comic book field, which was then in its infancy. After drawing a few sample pages, I nervously called on my first publisher and almost fell over backwards when he accepted my work right off the bat! That was the old Comic Corporation of America, and in those days $6 a page for drawing, writing and lettering seemed a small fortune. Many comic book pages flowed from my pen and brush until I landed a staff job at Fiction House, then one of the biggest comic publishers. I firmly believe that this experience, turning out a required number of drawings a day, was the best school in the world for all the budding artists of that time.
You had to draw fast, even if not too well, but nevertheless, it trained the eye and imagination.

Then the war broke out, and in the spring of 1942, I joined the Air Corps Reserve for future training as an aviation cadet. The girl who had drawn me from music to art became my wife, and in February of 1943, my orders arrived. Down to Nashville I went, only to be "washed out" before I was an airplane. Next stop was radio school at Scott Field, then an instructor's job at the bomber school in Avon Park, Florida. Then to England with the 8th Air Force as a radio-operator and gunner, and back to the States for assignment to the Air Transport Command in California, where we covered the entire Pacific, even to Japan, before the surrender. As much as I would have liked it, flying status kept me from any permanent drawing job on Yank, Stars and Stripes, etc. I did carry a little water color book with me, though, and still treasure the sketches made from England to Japan.

After my discharge in 1945, I rejoined the staff of Fiction House as art director, and continued to turn out an average of two pages a day. This was a real grind, however, and I soon realized that my old dream of a syndicated strip was gathering cobwebs way down under the stacks of comic book pages. I gave up the position with Fiction House and opened my own studio in New York City. Freelancing was lucrative, but I was still trapped in the comic game. Then the break came. Through the efforts of that great cartoonist, Roy Van Duren, United Feature Syndicate offered me an own TARZAN daily strip and Sunday page in the summer of 1950. The realization that I would follow in the footsteps of men like Hal Foster, Burne Hogarth, Rex Maxon and others, enthralled and terrified me as well. To this day, the challenge of illustrating Edgar Rice Burroughs' fabulous TARZAN, as he might have visualized him, remains an opportunity I shall always cherish. Even on the golf course the spirit of the ape-man is ever present, for it isn't long off the first tee when his voice seems to echo from the leafy foliace above, "Bob, you've got to get rid of that hook!"

—Bob Lubbers

Ad-lib: Bob Lubbers did an excellent job on the Tarzan strip. His drawings were reminiscent of the golden years when Hal Foster was doing the strip, and in spite of being handicapped by some pretty tired scripts, Bob's imaginative illustrations and creativeness overcame the lack of originality in the stories. Then one day Al Capp, perhaps a bit jealous of Tarzan's popularity, decided to do a Tarzan strip of his own. Capp's "Tarzan" was a nature gal who lived in a lost valley with her maw, and whose only friends were the little animals of the wilderness. Capp called her LONG SAN, and later provided her with a "Wild Boy" companion. Capp wrote the script and Bob Lubbers was lured away from TARZAN to do the art. When Capp lost interest in the strip, it started petering out, and Bob started "ghosting" other strips, RUSTY RICH, BIG BEN SOLO, etc. As Bob says, "he is the kind of a strip that will never die." —By Edgar Rice Burroughs

TARZAN

SECRET AGENT X-9

Top and center strips are examples of Lubbers' LON GSAM and TARZAN dailies.

By Bob Lewis

Left is one of Lubbers' early SECRET AGENT strips by "Bob Lewis".
The first daily TARZAN strip by Bob Luba was strip number 315. It was the first of six strips concluding a story which had, up to this point, been illustrated by Nick Vascardy.

311-3161: Evil white man turns great apes and natives against each other to obtain oil rights.
3162-3171: The ape-man becomes "King" of a native tribe in this story based on material in "THE RETURN OF TARZAN."
3511-3572: Captured by "The Swamp People," Tarzan battles Jag-Ar, the shark-god and recovers a valuable plaque.
3573-3633: To save the coffee plantation of a friend in Portuguese Africa, Tarzan turns matador, slays a bull and fights an unenvied duel with the villainous Lazar. (Lubbers started dating the strips with number 3589, Feb. 12, 1951.)
3634-3689: Tarzan saves a white girl and her aviator husband from cannibals whose chief has aeronautical ambitions. (Based on "The Black Flyer" episode in TARZAN THE UNTRAPPED.)
3690-3717: Tarzan is forced to work in a copper mine by Gunner Milo and his gang. The ape-man is rescued by Tantor and recovers the mine for its rightful owner. (Part of this script is based on incidents in TARZAN THE INVINCIBLE. With strip number 3709, July 2, 1951, the artist started signing the strip "Bob Lubbers and Dick Van Buren." For the first time in the history of the TARZAN strip, the scriptwriter's name is identified publicly. With strip number 3715, Lubbers started running the date and number of the strip, side-by-side, in the same panel, i.e. 7/9 3715. By strip number 3926, Lubbers was running the date and strip number together, i.e. 3-11-3926. This latter method will be used to identify the strips in the remainder of this checklist. However, since this method only identifies the month, day and strip number, the year will be added, in parenthesis, as the year changes occur.)
8-16-3718/10-17-3801: In pursuit of his enemy, Gunner Milo, the ape-man meets and overcomes "The Hunter," a white man who rules a jungle island by making animals and natives drug addicts.
10-17-3801/12-26-3961: Leaving the jungle island by pact, Tarzan is picked up by an Arab pirate, Aved, who plunders the small shipping business of Philip Toll. With action borrowed from Fairbanks! THE BLACK PIRATE, the ape-man helps Toll to overcome the renegade.
12-26-3961/3-6-39721 (1952): Olga Le Conte, a murderous, crashes in the jungle and because of her blonde hair, Turo, the witch doctor, gains power over his tribe by proclaiming Olga "The Spirit of the Sun" and receives the girl's cooperation by promising ivory treasure. A few weeks later, Olga is forced to wear a crown in order to hide a "dark-rooted" secret. Tarzan aids a detective and reveals the deception of Olga and Turo to the duped tribe.
3-6-39721/5-15-3982: Tarzan helps lumberman, Bill Hall, to fulfill a contract and overcome treachery and murder.
5-16-3983/8-11-3957: Tarzan aids Steve Harris and Ben Linton, who are searching for the lost mines of the Queen of Sheba, and meets Wala, High Priestess of the moom worshipers of Zimba. (Script adapted from THE RETURN OF TARZAN and TARZAN AND THE JEWELS OF UFAR.)
8-11-3957/10-12-39110: Jim Casey seeks proof of his uncle's death and asks Tarzan to help. Finding his uncle alive, Jim plots murder in order to inherit the elder Casey's estate.
10-13-39111/12-25-41731: Tarzan battles the "Order of the Sculls," a Mau-Mau type of fanatics led by a white man.

1-19-4195/2-28-4230: A bull elephant survives West's explosives and burns rogue. Tarzan helps natives destroy Tantor, the terrible.
3-2-4231/6-1-4309: The ape-man picks up the trail of his old enemy, Sam, the mad leader of the "Order of the Skulls." Disguised as a legionnaire, Tarzan follows him into the French Foreign Legion and becomes a hero in battle. But Tarzan's greatest battle is with the forces of nature, which destroys his enemy and almost overcomes the jungle lord. (Parts of the script are adapted from THE RETURN OF TARZAN and TARZAN THE UNTRAPPED.)
6-2-4310/6-11-4370: Apes and natives are dying of a mysterious "Foaming Death." Tracking the source of the mystery to the laboratory of Prof. Redfield and Roy Brewster, the ape-man discovers that the "Foaming Death" is caused by a mold grown in a cave for Redfield's research on wonder drugs. Unknown to Redfield, Brewster had discovered gold in the cave and was using the "Foaming Death" to gain a fortune. Tarzan exposes the villainy of Brewster and leaves Redfield to work on his wonder drugs.
8-12-4371/10-22-4432: Tarzan rescues Holu, one of the "Lake People," from Sinila. Holu tells the ape-man that his late worshiper Kaka, the octopus, had called a "White Demon" and sent him to warn them to leave the lake. Tarzan discovers that the "black sticks" are silver bullion and the "Demon" is Jim Cross, who had murdered the talking treasure. Cross forced the natives to dive for the silver because Kaka guards it. Kaka and the "White Demon" are destroyed by Tarzan.
10-23-4433/12-22-4484: The ape-man meets Betty Cole, a spoiled socialite on a hunting trip. The girl's poor marksman is wounding animals and Tarzan objects to this cruelty. Betty is captured by "Insect Men," who wish to use her to replace their "White Queen" so Remm, an ambitious native, can rule. Tarzan rescues Betty and thwarts Remm's plans.
12-23-4485/1-3-4500 (1954): Jacques Durand, physician and fugitive, hides out in the jungle. While helping a motion picture crew obtain wild animal pictures, the ape-man tricks Durand into keeping his professional oath. (Lubbers only started this story, which was completed by John Celardo. The last strip signed by Lubbers is number 1488. Celardo's hand is evident in strips 1489 through 1504, then Lubbers' style is back in strips 1505 through 1500. This is due to the fact, according to Bob Hyde, that Celardo inked some of Lubbers' pencilled work prior to actually taking over the strip. The first strip signed by Celardo, who is still doing the daily and Sunday TARZAN feature, was number 1507, dated January 10, 1954.)

Note: When a story ends and a new one starts with the same numbered strip, it is because the stories have their beginning and concluding episodes.
Note: When a story ends and a new one starts with the same numbered strip, it is usually because the stories have their concluding and opening scenes in different panels of the same strip. This is also true of the Sunday page episodes.

33
The first Sunday TARZAN page by Bob Lubbers was 1916. It was the sixth episode of a story which had, up to this point, been illustrated by Furne Beardsley.

9-21-1920/12-3-1930: Morgan Blake seeks to capture some brilliant yellow-colored natives and animals to sell as freaks to circuses. Tarzan aids Isma, Princess of Anhera, to balk Blake’s plans.
12-10-1931/1-22-1950 (1951): Tarzan fell into a valley inhabited by the pygmy people of Kimia. (Story based on TARZAN AND THE ANI MEN.)
-29-1931/7-9-1961: Tarzan meets a jungle girl who grew up with only monkeys as friends. The girl’s father, a mad anthropologist, has turned an ape into “Igl,” a subhuman monster. It escapes with the girl. Tarzan rescues the girl. Girl’s father regains his reason. (The story-line seems to be derived from two sources: Tarzan’s early Sunday-page adventures with Atalakan, the monkey-man, and JR’s THE MONSTER MAN.)
7-15-1962/10-11-1975: Tarzan befriends a wounded, black-maned, lion and meets Nancy Brooks, who is searching for her lost uncle. They find him in a strange city of gold, inhabited by baboons that worship Numa, the Emperor. (Story adapted from TARZAN AND THE GOLDEN LION. With strip 7-29-1961, Lubbers started signing Dick Van Buren’s name to the Sunday page.)
2-21-1994/6-21-1111: On Mt. Junga, Tarzan finds a lost race of Inca Indians, a woolly mammoth and a treasure seeking madman. (Lubbers started placing the date and number of the strip together with Sunday page 1101.)
6-11-1111/9-21-1123: Tarzan saves native village from a pair of albino “ghost” lions.
9-11-1123/12-28-1138: Tarzan encounters his double, the movie “Leopard Man,” and a mad scientist who rules a city of English-speaking apes. (Based on TARZAN AND THE LION MAN.)

12-28-1130/1-11-1160 (1953): Story based on TARZAN AND THE FORBIDDEN CITY. (Sunday page 2-1-1133 is signed with Lubbers’ name only. This page, consisting of Tarzan’s battle with a giant lizard, was created by Bob and added to the Van Buren script to give it some extra action.)
9-13-1175/12-6-1187: Martin Dale, a wild animal trainer, is disfigured in a circus tragedy. The derailed performer goes to Africa, where he uses his cats to terrorize and plunder, and becomes the infamous “Devil Man.” He is defeated by the ape-man. (Story seems to be suggested by an early Sunday page adventure about Lemida, the woman in the black mask. Sunday episodes 1176 and 1177 are not signed by the artist, but 1178 bears the names of both Lubbers and Van Buren, which is the last time Van Buren’s name appears with Lubbers’ art. The remainder of the episodes were signed by the artist only, except 1186, which is not signed.)
12-13-1188/2-21-1198 (1954): Tarzan is captured by the remnants of a lost race of Egyptians and forced to labor on the construction of a pyramid tomb. (Story is reminiscent of Tarzan’s 1930-33 Sunday page adventures with Egyptians. This last story illustrated by Lubbers contains some of his most pictorially beautiful work and some of his poorest, too. The “comic” looking appearance of the characters in some of the later episodes can, no doubt, be blamed on the fact Lubbers had already started working on Al Capp’s new “comical strip” characters in LONG AWAITS. The familiar Bob Lubbers signature appears for the last time with page 1190, the same page that Celardo’s touch first becomes evident in the Sunday strips. Except for 1196, where Lubbers’ name appears in an unfamiliar manner, none of the remaining Lubbers episodes are signed. As with the later daily strips by Lubbers, John Celardo inked the pencil drawings of Bob’s final pages for the Tarzan feature. Page 2-28-1199 was the first page to be signed by Celardo, who concluded the Egyptian adventure with 3-1-1201.

"...Later, when Tarzan had finished making new weapons, a familiar scent crossed his nostrils—this girl again!"

"He shouldered his new bow and leaped after her, she must be questioned!"

"Caught, the girl bit and scratched, then pleaded for freedom. Tarzan was astonished—for she spoke in the language of the great apes!"

Four panels from a Bob Lubbers Sunday TARZAN page.
It was a lovely day in July and my young nephew and I strolled over to Fores River, which empties into the Atlantic Ocean. I usually brought my camera along with me, as I often snapped pictures that caught my fancy. On this early afternoon, when the tide was out, so I had no intention of swimming, I just wanted to revisit a familiar place that was dear to my heart.

As we drew within sight of the river, which on this side was bordered by numerous oak trees, little was I prepared for the surprise that awaited me. I could see no one on the river bank and believed the reason was no swimmers came over here when the tide was out.

Talking with my young nephew, we approached the river when to my sharp ears came an unfamiliar feminine voice, apparently in distress, calling:

"Help! Help! Please help me."

I quickly looked about, but could see no one. But evidently one in apparent distress had seen me. Again the voice plaintively repeated its cry for succor.

Guided by the direction from which the voice issued, my sharp eyes perceived a short distance from me the figure of a young girl clad in a bathing suit. She was clinging to the limb of an oak tree some thirty feet from the ground. I guessed her age to be about eleven, maybe twelve.

Drawing closer to the base of the tree and looking up at her, I at once understood what had happened. The young girl must have been seeing Tarzan movies, and I immediately remembered that "Tarzan and his Mate" had been presented at one of the city's motion picture houses recently. This young girl must have seen it and she had endeavored to duplicate what Jane of the movies did. But when reaching for the higher limb considerably out of line with the one upon which she stood, she had successfully performed the feat she had in mind; but after doing so, she was unable to reach it again with her dangling feet. And so she had remained there, why she did not attempt to negotiate the main bale of the tree I do not know. I called up to her questionably:

"Can't you come down?"

"I'm afraid," she whimpered. "Can you come up and get me?"

I told my young nephew what I was going to do. In a few minutes I was drawing myself up into the tree with Tarzan-like proportions, and thinking to myself I was acting just like Tarzan would were he confronted with a similar situation. As I drew closer to the young girl I was surprised that a somewhat impish smile was upon her face. When I presently drew alongside her I gently reprimanded her for what she had done, adding that she might have hurt herself. She merely looked at me in awe. Then I told her to wrap her arms around my neck, but be sure not to strangle me. She promised in a trembling voice; and so I descended from the tree top with the young girl clinging to me for dear life.

And do you know what she said when I gently deposited her upon the ground? It was this:

"Just like Tarzan and his mate," and the impish smile was upon her face again.

I smiled tolerantly.

"You've been seeing Tarzan movies," I said.

She smiled and nodded.

"I love them," she confessed. "Do you see any of them?"

I nodded and admitted I hadn't missed one; but added cautiously:

"But young girls should not be climbing into trees. It isn't becoming of them."

The impish smile upon the young girl's face remained and there was nothing further I could say; but instantly I admired her for her adventurous spirit.
First, I would like to clarify my name. My full name is Clarence Benjamin Hyde. There is no "Robert" nor "Bob" in my legal name. "Bob" is a nickname, but it is what my parents always called me, and it is what I go by in all but the more formal occasions requiring my full name.

I made the decision to be a collector of TARZAN in 1937. A good friend of mine had received a copy of TARZAN THE UNCHAINED for a Christmas present in 1936 and had loaned it to me to read. I had never read a book like this before, and it made a deep impression on me. I was eleven years old at the time. Before this, I had read the Tarzan daily and Sunday adventure strips, the early Tarzan Big Little Books, and seen some of the movies. I determined then, to collect everything about Tarzan I could find. I dug up a Hal Foster Tarzan coloring book and a Tarzan sweat shirt, both from 1933, and some then recent Tip Top Comics. These, with the Big Little Books, were to form the foundation for my collection. I started saving the Hal Foster Sunday Tarzan strip on April 14, 1937.

In June that year, I received TARZAN AT THE EARTH'S CORE, and then LOST EMPIRE for Christmas. These, of course, were the Grosset & Dunlap reprints. I was unaware of such things as "first editions" then. I continued at a rather slow pace, collecting more Tarzan novels, Big Little Books, Tip Top Comics and the Sunday strips, as well as newspaper clipplings, particularly about the movies.

I joined the TARZAN CLANS OF AMERICA when I saw the advertisement in Tip Top Comics in 1939, and received TARZAN THE MAGNIFICENT, autographed to me by Edgar Rice Burroughs. This opened my eyes to "first editions" and I decided to obtain them whenever possible from then on. I began searching second-hand book stores for older magazine stories as well as getting the current magazine stories as they were published.

A short article along with a letter from me was published in Tip Top Comics, February 1942, in the "Hobby of the Month" column, which described my hobby and my collection. I received letters from at least a hundred people as a result, some of whom are now members of the Burroughs Bibliophiles.

By this time a couple of tree-huts had been built in a convenient neighborhood "jungle" and I spent many a summer hour in the trees.

I went to New York in 1942 and interviewed Burroughs Hagarth and received an original Tarzan drawing from him. Over the years, I have had at least a dozen very pleasant visits with him. At one time I accompanied him on a visit to the American Museum of Natural History in New York, where he made sketches of an African wild boar that he later used in the strip. I have also interviewed Ben Naxen, Hal Foster, Dan Berry, Paul Reinman, Bob Lubbers, John Calandro and J. Allen St. John, and have original drawings from them in my collection. This has probably been the most interesting result of my hobby—visiting with the people who have worked in the Tarzan business. I once interviewed Don Gorden, who was writing the story for the Tarzan Sunday page at the time. I have not been so successful with the movie actors however, having interviewed only Buster Crabbe and Lex Barker, although I have photographs autographed to me from all the screen Tarzans except P. Dempsey Tabler.

Although I kept up the collection of Sunday strips, comic books, and other items as they appeared, my book collection slowed down somewhat until I had a home of my own in which to expand. So about 1956 I started to expand my book collection to include every American edition and some foreign language editions. The correspondence that had started with my letter in the 1941 Tip Top had all ceased during World War II, and I knew no other Burroughs collectors. In 1957, I put up a display of my Tarzan art work and foreign language items concerning Tarzan in a bank window. From this public display, I met people who knew Vernell Corell, and his Burroughs Bulletin, and I then met Vernell, who opened up the avenues to many other Burroughs collectors.

In 1959, at the World Science Fiction Convention in Detroit, I gave a talk about NES and his science-fiction type stories followed by a general discussion. Vernell had received permission from NES, Inc., to form a club (Ad-14b: to be called THE BURROUGHS BIBLIOPHILES and operated on a non-profit basis), and thought that a Science Fiction Convention would be a good place to find many Burroughs fans together. I was on the committee for the 1960 one held in Pittsburgh, and made arrangements for an organizational meeting. At the last minute Vernell couldn't attend, so to help out, at his request, I presided over the meeting and THE BURROUGHS BIBLIOPHILES was organized. I was elected President at that time.

Briefly, my collection is now about 700 books, about 400 magazines, all the Sunday strips, thousands of the daily strips, a couple of hundred comic books, a couple of hundred movie stills, plus some movie film and phonograph records and several scrap books of clippings.

In addition, I've had a life outside of the collecting of NES. I was born in Warren, Ohio, in 1925, and graduated there, graduating from the High School in that town. I entered the Navy in 1943 and was sent to Yale University for officers training. From there to Bates College in Maine, and Northwestern University Midshipman's School in Chicago. I served aboard a submarine chaser from 1945 to 1947, being the commanding officer in 1946-47.

I returned to Yale in 1947, graduated in 1949, and worked on the iron ore boats on the Great Lakes during the summers of 1947 and 1948. After college I started work at The Bryant Hunter Company in Cleveland in the Production Planning Dept., and left there in 1951 to go with National Tube Division of U. S. Steel, in Lorain, Ohio, as a Procedure Accountant. I was transferred to Pittsburgh in 1954, to be a program manager for several different MATC companies, where I am at present.

I met my wife, Alice, who does not share my hobby of collecting Burroughs, in Cleveland. We have three children—Wendy, John and Susan, none of whom have shown any interest in Burroughs as yet.
Upper left: Bob holds copy of ERB's GOLDEN LION displaying St. John's jacket illustration. On the wall is Bob's own version of the famous picture, which took him weeks of artistic effort to produce.

Upper right: Bob, age 15, lives the part. As a young individualist, he would rather fight than switch to cowboys and Indians.

Center pix: Bob's Burroughs den and office, displaying just a part of his huge ERB collection, which was built and designed by Bob in the late 50's.

Left: Bob's collection of Tarzan art and autographed Tarzan movie stills on display in the "Hobby Theatre" window of the Mellon Bank in 1957. This proved to be one of the most popular of all Hobby Theatre showings.
The picture belongs to David B. Turner, a civil service employee at the Alameda Naval Air Station, Alameda, California.

Mr. Turner, unfortunately, never met Burroughs. To quote from a letter from Mr. Turner's wife:

"Dave met Prince Ilaki Ali Hassan on the American President Lines ship they both took to Honolulu in September, 1940. It was hard to get transportation of any kind at that time, and they were both in third class steerage. Prince Ilaki was on his way there to wrestle. He was also an excellent swimmer and diver and could play the piano. He (Ilaki) wrote for the Argosy magazine, which was a pulp magazine at that time. Dave says he thinks Prince Ilaki got to know Burroughs through the fact that they both wrote for Argosy, and that Ilaki persuaded Burroughs to pose with him in this picture as publicity for his wrestling career. Dave was on his way to Hickam Field Army Air Base, where he worked from September, 1940, to May, 1947, as a civil service employee. This is all Dave can remember. He called the (Oakland) Tribune sports department to see if they could tell him anything about Prince Ilaki and whether he was still living, but they didn't have any information on him. Sorry this isn't more help."

Mrs. Turner's letter is a bit more help than she realizes. The connection with Argosy is telling---perhaps ERB, judging by the pose, is helping the Prince with a story for that admirable old pulp. At least one carbon is being made and there's an extra typewriter ribbon on the desk. The Prince might have been stuck on a particularly hard action scene; the kind ERB would have delighted in.

My father, Russell D. Walker, and stepmother, Betty, visited the Turners in Alameda recently. Mrs. Turner is Betty's sister. My father somehow got around to talking about my interest in Burroughs and it tripped a relay in Dave's memory. "Hell," said he, "I remember Burroughs. I've got a picture of him upstairs." The trip upstairs was fruitful, he loaned the picture to me with full permission for the Burroughs Bulletin to use it.

The finding honors go to my Dad who knows my interest in Burroughs.

The signature reads "To my buddy, Dave. With best wishes, Prince Ilaki, October 20, 1940. Honolulu, T.H." Then follows a squiggle of what appears to be Arabic... perhaps his signature in Arabic?
to be at fantastically great heat in order to keep the ship hovering above the planet.

It is evident that this naive conception of the 8th ray cannot be seriously entertained. While the principle involved is both simple and sound, it practical application is technically unfeasible and we can conclude that it is not employed in the Martian flier. Moreover it is difficult if not impossible to reconcile this interpretation of the eighth ray with certain statements in Carter's description of the phenomenon. Thus, he says it is the solar 8th ray which drives light from the sun across the vacuum of space, and it it the individual 8th ray of each planet which reflects the light into space again. This statement specifically declares that the 8th ray is not light itself, but a propulsive force which moves light away from its source. If every major celestial body possesses its own particular 8th ray, it would seem that this propulsive agency is a property of matter rather than of light, but Carter now confuses us with the assertion that the 8th ray "is an inherent property of all light, no matter from what source." Again, according to Carter the eighth ray is capable of lifting enormous weights when it is isolated, concentrated, and confined in closed containers. Now if the 8th ray is some "inherent property"—i.e., some descriptive characteristic—of radiant energy, such as frequency, amplitude, or polarization, then it cannot be isolated; that is, it cannot be dissociated or abstracted from the physical entity which it characterizes. Furthermore, although electromagnetic waves may be concentrated by lenses or mirrors and their pressure thus increased, if this pressure is to be employed in lifting a flier the radiation may not be confined in a closed space— it must be allowed to escape from the craft in order to drive it upward by reaction, like a rocket, or else the radiant energy must strike against the ship from some external source. All these considerations militate against the simple notion that the 8th ray is merely a certain range of invisible light waves.

As soon as the flier is freed of Carter's weight it rises swiftly with its two Martian passengers.

This passage mentions two control devices on the flier: a "starting lever" which can be "set at high speed" and thus appears to function in connection with the propellers that give the vessel its forward motion, and a button which controls the action of the 8th ray, and which can apparently be depressed to a variable extent and "locked" in any given position. The sentence that the ray tanks "were charged with only sufficient energy to lift two ordinary men" again seems to imply that the total quantity of 8th ray in the tanks is invariant; consequently the depressing of the button must somehow serve to increase the intensity of the ray's repulsive force. It seems clear that the Martian flier is designed to accomplish all maneuvers, including descent and lifting unloaded upon the ground, with a fixed total quantity of the 8th ray in its tanks.

The fact that the 8th ray can be isolated, concentrated, and confined in hollow receptacles, from which it "leaks out" when they are punctured, suggests that the 8th ray is a substance rather resembling a gas. Indeed, in its mechanical principles the Martian flier appears to be somewhat similar to a balloon, with the 8th ray in the small buoyancy tanks analogous to the lighter-than-air gas in the huge bag of our own familiar balloon or dirigible, but there is a fundamental difference, for our balloons require an external material atmosphere to support them, while the Martian flier does not.

If then we assume that the "eighth ray" is simply matter, probably in the gaseous state, how can it be employed to levitate the flier in the absence of a heavy external atmosphere? One way would be by the reaction—principle of the rocket: ejecting the "rays" downward at high velocities from nozzles in the bottoms of the
"buoyancy tanks," but the Martian flier is not described as a rocket --- Carter states unequivocally that the 6th ray must remain confined in the tanks in order to lift the ship. The alternative conclusion, to which we have been led, is that the 6th ray "gas" inside the containers exerts an excess upward pressure on the tops of those tanks. An ordinary gas will not do this, so we conclude that the 6th ray particles are not normal molecules or atoms, but are characterized by some peculiarity endowing them with surplus kinetic energy when moving upward.

Perhaps the simplest idea to offer itself is that the 6th ray consists of ions: particles of matter such as molecules, atoms, or sub-atomic corpuscles, carrying either a positive or a negative electric charge. As an immediate, though trivial, support of this view may be mentioned the common practice of physicists to apply the term "rays" to those fast-moving electrified particles associated with the phenomena of the electric - discharge tube and with radioactivity. Thus the high-speed electrons which speed across the vacuum in a glass tube, from the negative terminal to the positive, are called "cathode rays." The electrons ejected spontaneously from the nuclei of certain atoms are known as "beta rays:" the helium - nuclei emitted from such atoms are "alpha rays:" and the positive gas-ions passing through perforations in the cathode of a gas-filled glass tube are "canal rays.

On the basis of this idea we may imagine the essential mechanism of the Martian flier somewhat as follows. Picture the "buoyancy tanks" to be a number of thin-walled hollow cubes located beneath the deck-flooring of the craft, and filled with some gas, e.g., helium. We suppose that two opposite walls of each tank form terminals of an electric circuit, and that a potential difference of \( V \) volts can be established between them by the closing of a switch. If the two plates are a distance \( L \) apart, then except near the edges the electric field intensity (force on unit charge) within the tank will be uniform and of amount

\[
E = \frac{V}{L}.
\]

The tanks may be so mounted and stabilized that the field \( E \) is always directed vertically upward, i.e., with the positive face at the bottom and the negative face at the top of the tank. When the operator of the ship closes the switch setting up the field \( E \), some small fraction of the gas becomes positively ionized and these electrified molecules (or atoms) in the case of helium, which has a monatomic molecule) tend to move upward toward the negative side of the cube. Thus, superimposed on the random thermal motions of the gas molecules there is a slight net upward drift imposed on the ionized particles by the electric field \( E \).

Let the average positive charge per ion be \( e \) times the electronic charge (\( 4.77 \times 10^{-10} \) esu), then the average upward force impressed on an ion by the field is \( eE \), and if there are always \( N \) positive ions in the chamber the total force on them — which they in turn exert on the upper face of the tank by collision --- is

\[
N e E = \frac{m g}{e V}.
\]

Hence, given \( n \) tanks in the flier, the total upward force exerted on the ship is \( nN e e V / L \), and this must be at least sufficient to exactly balance the weight of the flier and its load. Thus if \( m \) is the total mass of the vessel, including its cargo and the gas in the buoyancy tanks, we must have

\[
\frac{m g}{e V} = \frac{N e E}{L}.
\]

where \( g = 392 \) cm/sec\(^2\) is the gravitational acceleration at the surface of Mars.

If \( e \) is given in multiples of the electronic charge and \( V \) in volts, the product \( e V \) is equal to about \( 1.6 \times 10^{-12} \) gm cm\(^2\)/sec\(^2\). Suppose each ion to have a charge \( e = 2 \), and let the potential difference across the tank be 60 volts; then \( e V = 1.6 \times 2 \times 60 \times 10^{-12} \) gm cm\(^2\)/sec\(^2\), or \( 1.92 \times 10^{-10} \) gm cm\(^2\)/sec\(^2\). Take the separation \( L \) between the charged plates to be 1 cm, and consider the total mass of the flier (including gas and cargo) to be \( m = 500 \) kg = \( 5 \times 10^5 \) gm. With \( g = 392 \) cm/sec\(^2\), we have then for the total number of positive ions required to equalize the weight of the flier:

\[
N = \frac{m g L}{e V} = \frac{5 \times 10^5 \times 392 \times 1 \text{ gm cm}^2 / \text{sec}^2}{1.92 \times 10^{-10} \text{ gm cm}^2 / \text{sec}^2} = 1.021 \times 10^{18}.
\]

This result, we note, is quite independent of the nature of the gas used in the tanks. Intuitively we might expect a light gas such as helium to require a greater number of charged molecules to lift the flier than a heavy gas like nitrogen, oxygen, or argon. But we need only reflect that if the mass of each ion is doubled, it will experience only half the acceleration in the electric field, and so will strike the upper wall of the tank with the same force. So if we choose the gas to be helium, so that the working particles of the 6th ray are He\(^++\) ions, identical in nature with the alpha-rays emitted from radioactive substances, and having a mass of \( 6.6 \times 10^{-24} \) gm each, the total necessary mass of the "6th ray" is only

\[
m = 1.021 \times 10^{16} \times 6.6 \times 10^{-24} \text{ gm} = 6.74 \times 10^{-6} \text{ gm}.
\]

If we assume that one molecule per hundred million (10\(^8\)) is ionized, the total mass of gas required to balance the weight of the flier is a mere 67 kg (about 1\(^\frac{1}{2}\) lb). Helium gas at standard temperature and pressure has a density of 0.1785 gm/liter; hence the total necessary volume of the buoyancy tanks would be about 3775 liters. A flier having this volume of gas contained under its deck would have to be some 13 meters long (say 40 ft), 3-1/3 meters wide (about 10 ft), and somewhat over 10 cm thick (say 1/2 ft). By increasing the total depth of the tanks under the deck to about 20 inches, the length of the craft could be reduced to about 20 feet and its width to 5 feet.

Superficially this conception of the 6th ray may appear simple and attractive enough, but my reader has probably noticed that the picture I have drawn above smacks of pulling oneself up by one's bootstraps. I have avoided mentioning

\[
\text{That is, 1 electron-volt} = 1.6 \times 10^{-12} \text{ ergs, approximately.}
\]
two fatal objections to the idea's feasibility. First, statistically we must expect that for every positive ion produced in the container—say by contact with the lower face—there is an equally-charged negative ion produced at the upper face; this negative ion is accelerated downward by the field E and strikes the bottom of the container with the same force that the positive ion exerts against the top. The two oppositely-directed blows cancel each other's effect and so the tank does not move. Second, even if we had only positive ions in the buoyancy tank, this scheme of levitating the ship would be frustrated by Newton's third law of motion: the equality of action and reaction. As the electric field E accelerates an ion upward, the ion reacts upon the field and through it imparts an equal downward momentum to the tank. Upon collision with the top of the tank, the ion imparts its upward momentum to the tank and itself acquires the downward momentum of the container. The net result of many collisions of the ion with both opposite faces of the tank is to leave the position of the whole system unchanged. The situation is simply summed up in the well-established principle of mechanics that the center of gravity of a closed system cannot be permanently displaced by any continuing action occurring within the system.

There remains also the fact that the foregoing interpretation of the 5th ray has nothing in common with the description gleaned from the Mars books except to account for the ray's "leaking out" of an open reservoir in the manner of gaseous matter.

The failure of both the "invisible Light" theory and the "ionized gas" theory to provide an adequate explanation of the 8th ray prompted search for a new approach to the problem during the 1930's and early 40's, but with no success worth mentioning. Some ideas were vaguer and less amenable to intelligible interpretation than Carter's original description; others were too elaborately hypothetical and presented mathematical difficulties far beyond my competence to attempt. However, the progress of atomic physics during this period—particularly the experimental discovery of new types of subatomic particles such as neutrons, positrons, and mesons—gradually opened the door to what I now feel to be the secret of the Eighth Ray, by leading to the conception of antimatter, or "contraterrene matter" as it was first called. (In fairness it should be remarked that already in the 1920's the idea of such "reversed" matter had been advanced by various writers of a certain type of fantastic nonsense known as "science fiction,"* which seems to exercise considerable appeal to the mentally immature.) Finally, in 1944, a simple solution to the problem of the 8th ray was reached, which I believe to be fairly near the truth.

First allow me to review briefly the salient features of Captain Carter's description of the 8th ray.

1) The 6th ray is one of the nine distinct elementary colors which the Martian human eye distinguishes, seven of these colors being those that we earthmen recognize as the components of white light. (The fact that Carter, an earthman, is able to see the two additional fundamental hues raises an interesting question, which we cannot pursue at this point.) This is of course a subjective datum, defining the 8th ray only in terms of a mental impression. It does not reveal the nature of the physical stimulus creating the particular color-sensation, but ostensibly implies that the color named the "eighth ray" is caused by some form of radiant energy entering the eye. In what follows, however, the term "8th ray" shall be understood to mean the physical entity—i.e., the radiation—which arouses the color-sensation, and not the subjective sensation itself.

2) The 8th ray is an inherent property of all light, no matter from what source it emanates. This statement implies that the 8th ray is a phenomenon associated not only with some particular frequency-range of electromagnetic radiation, but with all visible and invisible light, including those seven colors perceptible by our own eyes. Thus whatever its nature, the 8th ray is evidently an essential constituent of all electromagnetic radiant energy.

3) The solar 5th ray propels sunlight across space to the various planets, and the individual 8th ray of each planet reflects this light back into space. The solar 5th ray is absorbed by the surface of Mars, but the Martian 8th ray is constantly streaming out from the planet, constituting a repulsive force which drives light from Mars into space. Thus every major celestial body is a source of the 8th ray, which forms a field of repulsive force about the body and tends to propell light away from the body. Although the 8th ray is a form of radiation (as it is "constantly streaming out from" its source—body) it is not itself "light" as we commonly understand the term, but provides a propulsive force that causes ordinary light to be propagated through space. However, since the 8th ray is also "an inherent property of all light," we must infer that the 8th ray field surrounding a given body of matter is in some sense a component of the ordinary electromagnetic energy-field radiating from that body. In other words, a field of ordinary light (both visible and invisible) is compounded of at least two other energy fields, one of which is the 8th ray field; it is this 8th ray component that causes the whole electromagnetic field to expand at constant velocity around its origin.

4) The 8th ray can be isolated, concentrated and confined in closed containers, and is then capable of lifting great weights. When the buoyancy tanks of a flyer are opened, the 8th ray escapes in the manner of a gaseous material and the flyer sinks to the ground. That is to say, the 8th ray may by suitable means be separated from other components of electromagnetic radiation, and evidently is some sort of "substance" consisting of small corpuscles or discrete energy-quanta. These 8th ray particles must be
somewhat similar to photons, the fundamental energy-units of light; indeed we may infer that they are structural components of such photons, endowing the latter with motion through space at tremendous speed.

Considering all these aspects of the 8th ray together, we arrive at the following conception:

The Eighth Ray is a corpuscular radiation consisting of what I shall call "levitrons," or elementary particles of antigravitational "matter" --- i.e., of "substance" which is repelled by our familiar kind of matter in what we term the "gravitational field" of the latter. Such particles are said to have negative mass.

A photon, or ordinary "light-corpuscle," is composed of two parts: a "graviton" of positive mass \( m \) and a "levitron" of negative mass \(-m\), bound together by electric and magnetic forces and revolving about a common center with the frequency \( \nu \) of the photon. Probably both the graviton and the levitron bear electric charges, equal in magnitude but opposite in sign, so that the net charge and mass of the photon is zero.

When a photon passes close to an atomic nucleus it may be torn apart by the terrific forces to which it is subjected, that is, the electric field binding the graviton and the levitron into a single system is so strongly disturbed by the overpowering nuclear field that the two particles become separated and follow independent paths. Sometimes they both pass through the perturbing atom and escape from it along different routes --- this is the well-known phenomenon of "pair production" observed for gamma-rays by Anderson, Blackett, and Occhialini in the early 30's. In other cases, one particle may be absorbed by the atom and thus increase or decrease the mass of the latter, while the other particle escapes, appearing outside the atom as a photo-electron in the case of the graviton, or as an "8th ray" particle in the case of the levitron. One may surmise that the Martians long ago developed a technique for effecting such separation of photon-components efficiently and on a large scale by allowing light to pass through certain materials (e.g., the substance of the gem worn by the air-factory keeper) and collecting the two types of photon-disintegration products in separate receptacles, filling one reservoir with a "gas" of levitrons and the other with a gas of gravitrons.

Levitrons collectively are called the "eighth ray," while gravitrons collectively have been named the "ninth ray." I imagine these designations were applied by the original discoverer of the effect before he quite understood its real nature; evidently both types of particles will in certain circumstances create distinct sensations of color upon impinging on the retina of the Martian eye, and the Barsoomian savant who first isolated the two photon-constituents probably thought only that he had found two hitherto undetected wave-bands of ordinary light.

The gravitrons composing the Ninth Ray can by the use of delicate and complex equipment be assembled into atoms of ordinary matter; this process is employed by the Martians in manufacturing air from sunlight for their world.

By Newton's law of universal gravitation, two positive masses (bodies composed of gravitrons) \( M \) and \( M' \) attract each other with the force

\[
F = \frac{G \cdot M \cdot M'}{R^2}
\]

where \( G = 6.67 \times 10^{-8} \text{ cm}^3/\text{gm sec}^2 \) is the gravitational constant and \( R \) is the distance between their centers. If we replace the mass \( M' \) by a mass \(-M'\) composed entirely of levitrons, the force between \( M \) and this new body will be

\[
F' = \frac{G \cdot M \cdot M'}{R^2} = -\frac{G \cdot M \cdot M'}{R^2} ;
\]

in words, the "attraction" is negative, or the two bodies exert mutual repulsions on each other. The quantity \( G' \) here is of the same sort as the gravitation-constant \( G \), but we cannot unhesitatingly assume that \( G \) and \( G' \) are numerically equal in value when measured in the same units.

Now consider two levitrons --- masses \(-M\) and \(-M'\) separated by the distance \( R \) between their centroids; the proportionality-factor \( G' \) governing gravitational interaction between them is again of the same nature as \( G \) and \( G' \), but not necessarily equal in magnitude to either of these latter. The law of gravitational force between these two masses will be written

\[
F'' = \frac{G' \cdot (M \cdot M')}{R^2} = \frac{G' \cdot M \cdot M'}{R^2} ,
\]

so we see that the two bodies of "antigravitational" matter actually experience a mutual attraction just as "ordinary" masses do, though possibly this attraction differs in amount in the two cases. We have here the reverse of the well-known laws of magnetic and electrostatic force: in the gravitational case, masses of the same sign attract each other while masses of opposite sign repel each other. Without the existence of other, modifying influences, such as the much more powerful electric and magnetic fields, negative masses and positive masses could not remain in a single stable system; the two types of mass would tend to separate from each other, each kind forming its own exclusive universe. Actually this may be occurring --- it may be the explanation of the "expanding universe" of the modern cosmologist. Quite possibly, for instance, the members of the far-off galaxy-cluster in Coma Berenices consist of matter which is gravitationally opposite to that in our own corner of the cosmos.\(^6\)

Imagine now a very large number of levitrons, of total mass \(-\mu\), contained in the hollow buoyancy tanks of a flier. Let \( M \) be the mass of the planet and \( R \) the distance of the flier from the planet's center. Then we have for the gravitational force between the planet and the

\(^6\) It must be mentioned here that this concept of gravitationally "positive" and "negative" types of matter, existing at indefinitely great distance from each other, was suggested as early as 1891 by the English mathematical physicist Karl Pearson, and hinted at as far back as 1867 by William Thomson (Lord Kelvin).
As an illustrative example, let us consider a fairly large flier, of mass about 1000 tons—say 10^9 gm. By equation (A) the value of kμ must be at least equal to this if the ship is to be able to leave the ground and continue rising. (When kμ = m the flier is just balanced and hovers at constant altitude.) To be generous, let us assume that kμ = 10 m = 10^10 gm, which means the flier is capable of a net upward acceleration of nine "gravities." Take the mass of Mars at M = 6.45 \times 10^{22} gm and its radius R at roughly 3.4 \times 10^6 cm. Let the distance r be a practical minimum, say only 20 cm (about 8 inches). The ratio of the repulsive force f exercised on m by the flier to the attractive force w exerted on m' by the planet is

\[
\frac{f}{w} = \frac{k\mu m'}{r^2} \times \frac{R^2}{GMm'} = \frac{\mu R^2}{M (r)^2} = \frac{10^{10}}{6.45 \times 10^{22}} \left(\frac{3.4 \times 10^6}{2 \times 10^6}\right)^2 = 4.4 \times 10^{-3}, \text{ approx.}
\]

(Here we take f as positive since we are interested only in comparing numerical values.) We see that even in this rather extreme case the repulsion exerted on m' by the buoyancy tanks is less than half a percent of the attraction exercised on m' by the planet. There is, consequently, no danger of a small unfastened object being pushed upward off the deck of the vessel. This is in complete accord with the behavior described by Carter: the crew of an open-deck flier are able to walk about that deck as normally as on the ground, and small objects drop to the deck just as they do on the planet's surface. Of course, as R becomes very large, as when the flier is on an interplanetary voyage, the repulsion of the buoyancy tanks for such nearby objects will presently over-balance the pull of the planet on those articles; but a ship intended for such voyages would be completely enclosed anyway. Moreover, by placing the tanks not under the deck but in the surrounding walls, their conflicting fields will tend to reduce the net repulsive force on the deck itself to practically zero.

Let us return now to equation (A), which expresses the net force acting on the Martian flier. Whether the vessel climbs, hovers, or descends depends upon whether the second term in parentheses is numerically greater than, equal to, or less than the first term. Since the craft can accomplish all three of these basic maneuvers, and as the mass m of the ship (including personnel and cargo) is constant during their execution, it follows that the term kμ must be arbitrarily variable at the pilot's discretion; that is, the pilot must be able to change the value of kμ by manipulating certain controls. Unfortunately John Carter has given us no clue how this is achieved; he indicates only that the vessel is provided with a button that can be pushed into a sleeve, apparently to greater or lesser distance, and locked at a required position. The movement of the button to or fro evidently causes the value of kμ to increase or decrease, but we have no hint of the mechanism involved.
Nevertheless it is clear that at least one of the factors in the product $k \mu$ is changeable. We have defined $k$ as the ratio $G'/G$ of the gravitation "constants" relating to the interaction between gravitrons and levitrons (in the case of $G'$) and between gravitrons alone (in the case of $G$). While some theoretical physicists have suggested that Newton's "constant" $G$ is slowly diminishing in value as the universe ages, it appears quite unlikely to me that either $G$ or $G'$ (and hence the ratio $k$) would be subject to sudden, large local changes through human agency. Therefore I incline to the view that the factor $k$ remains constant, and that it is the levitron-mass $\mu$ (or more properly $-\mu$, to give its correct sign) which can be varied at will in the Barseoman aircraft.

Two possibilities are now open to us. The obvious method is to introduce additional levitrons into the buoyancy tanks to make the ship rise, and permit levitrons to escape from the tanks to make the craft come down. In order to put new levitrons into the reservoirs they must either be collected somehow from outside by tapping the planet's natural 8th ray field, or else generated de novo by some mechanism within the ship: for instance by switching on a powerful light, passing the radiation through a photon-disintegration apparatus, expelling the gravitrons and feeding the levitrons into the tanks. But we have observed that the Martian flyer seems designed to function with a fixed quantity of 8th ray in its reservoirs. Nowhere in the Mars books do we find an implication that the craft is equipped with means of gathering the 8th ray from surrounding space,* for in such event I am sure we would read somewhere that the pilot of a flyer replenished his supply of 8th ray after patching a punctured storage tank. As to the creation of levitrons by the second device I have suggested, this cannot be ruled out; however I suspect that the ship would have to carry along tremendous energy-sources, and again after rescaling a punctured buoyancy tank one should easily be able to replace the 8th ray lost from it.

The remaining alternative, which I favor strongly, is that the number of levitrons in a ship's reservoirs remains fixed, but that their individual negative masses, and thus their combined repulsive power, are varied by application of the well-known relativistic mass-effect. By Einstein's theory of relativity, a body which has mass $m_0$ when at rest in a particular reference-system will have the mass

$$m = m_0 \sqrt{1 - \frac{v^2}{c^2}}$$

when moving in that system with speed $v$, which can never exceed the velocity of light, $c$. We see that as $v$ approaches nearer and nearer the limiting velocity $c$, the effective mass $m$ grows ever greater, approaching infinite value as $v$ verges on $c$. The following short table illustrates how the mass $m$ (given in terms of multiples of the "rest mass" $m_0$) increases as the

<table>
<thead>
<tr>
<th>Velocity (km/sec)</th>
<th>Effective mass (m_0 = 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>259,608</td>
<td>2</td>
</tr>
<tr>
<td>290,171</td>
<td>4</td>
</tr>
<tr>
<td>298,106</td>
<td>10</td>
</tr>
<tr>
<td>299,986</td>
<td>100</td>
</tr>
<tr>
<td>299,999.85</td>
<td>1000</td>
</tr>
</tbody>
</table>

* It is reasonable to suppose that the Martians possess such equipment; but in all probability it is too cumbersome to carry on a flyer.

body moves at higher and higher speeds. For convenience we take $c$ to be exactly 300,000 kilometers per second.* It is seen that as the body's velocity approaches that of light, its mass grows ever more rapidly; thus at these high speeds a small increment in velocity results in an enormous increase in mass.

When $v$ is within some 15 km/sec of the velocity of light, we may in fact write to a good approximation

$$m = \frac{1}{\sqrt{1 - \frac{v^2}{c^2}}} \times 100\ m_0$$

where $\Delta v$ is the difference between $v$ and $c$; that is, $\Delta v = c - v$, in kilometers per second.

I can see no reason to doubt that the relativity equations apply as well to levitrons as to ordinary matter. Consequently, if a flyer's buoyancy tanks are initially filled with levitrons moving at speeds extremely near that of light, it will require only very slight changes in these speeds, effected by either mechanical or electrical agencies, to produce relatively huge variations in the masses of the particles and thus in the repulsive force which they collectively exert on "gravitationally positive" matter.

For illustration, let us consider a flyer whose mass without passengers or cargo is 1000 metric tons. We will call the product $-k\mu$ in equation (A) the "working mass" of 8th ray in the levitation tanks. Suppose these levitrons are fed into the evacuated reservoirs of the newly-built flyer at a speed of 299,999.4 km/sec, then their effective masses are 500 times their rest masses. Hence we can just balance the weight of the empty ship if the "rest value" of the working mass $-k\mu$ is $-2$ tons, so that the effective value of $-k\mu$ at the stated speed is $500 \times -2$ tons $= -1000$ tons. Now if by some device we reduce the velocities of the levitrons in the storage tanks to about 299,999.06 km/sec (about 0.3 km/sec less than their initial speed), their effective masses will be only 400 times their rest values; thus the effective working mass of the 8th ray will be only $400 \times -2$ tons $= -800$ tons, so the flyer (i.e., the system of ship plus 8th ray)

* The fact that $c$ is not exactly equal to 300,000 km/sec need not trouble us. For our purposes we can arbitrarily redefine the length of the kilometer so that precisely 300,000 of these units are traversed by light in a time of one second.
will have a net positive mass of 200 tons acted on by the planet's gravitational field.

Suppose the craft is intended to carry a maximum load of three times its own mass, so that the mass of vessel plus maximum load amounts to 600 tons. To just sustain this total burden against gravity, the working mass $\mu$ must have 2000 times its "rest" value, and this requires that the levitrons move at a velocity of 299,999.9625 km/sec --- about 12.4 ft/sec below light-speed.

Thus we see that varying the speed of the 8th ray particles by only half a kilometer (about 1640 ft) per second each way from its initial value of 299,999.4 km/sec allows us to lift the flier with a heavy load, hover at constant height, or descend to the ground and remain there unloaded. We are of course still in ignorance of the mechanism used in the Barscom man airship to bring about such acceleration and deceleration of the levitrons in the 8th ray containers. While I harbor some rudimentary ideas, they are too undeveloped to be enlarged upon here. Of course, we should not dismiss the possibility that the Martians can achieve the mass-variation of levitrons by means of some physical principle still unknown to ourselves, or by a known principle whose full implications we do not yet realize.

A fundamental problem which has not been touched upon --- partly to keep this article from becoming quite prohibitively long --- is the question of how levitrons are produced naturally in the bodies of stars and planets, and indeed in all objects which emit or reflect light. Here too I entertain some tentative notions, but am not prepared to advance them at this time.

At any rate, it seems to me that the theory of the 8th ray just sketched is in substantial agreement with the phenomena related to us by Captain Carter. Perhaps one or two particulars remain unclear, but I think there can be little doubt about the basic correctness of the hypothesis.

Since 1934, when the "leviton" theory of the 8th ray was first formulated as just presented, the concept of negative mass "matter" has become subject to serious debate in professional scientific circles. Nineteen years ago the hypothesis seemed to me rather daring; today it reads almost trite.

Opinion among theoreticians is divided on the question whether antimatter is gravitationally "negative" with respect to our familiar forms of substance; thus far experiment has not been able to provide a clear decision either way, because of the extremely short times that antimatter is available to observation. While most physicists tend to skepticism on the basis that negative-mass particles are inconsistent with the laws of dynamics, many cosmologists, on the other hand, are sympathetic inclined toward the idea since it provides a convenient rationale for the empirical fact of the expanding universe.

But even if the known antiparticles should eventually prove to have "positive" masses, our hypothesis of the 8th ray would suffer no mortal injury thereby, since we are under no rigid compulsion to identify our levitrons with any hitherto discovered antiparticles. If, on the other hand, it should turn out that positrons, antiprotons, antineutrons, etc., are in fact antigravitational with regard to the "normal" matter of our everyday world, we are even today on the threshold of profound scientific developments which will eventually make the Martian flier a familiar sight in Earthly skies.

Considering that John Carter's description of the 8th ray was written at a time when ideas like the foregoing were utterly alien to the thinking of most terrestrial scientists (let alone laymen), it is remarkable how accurate his grasp of the phenomenon actually was.

I understand that there are some persons who are prone to regard the Captain's sober Martian histories as fanciful fictions concocted by his nephew. If perchance you are one of these, you must at least admit that Edgar Rice Burroughs has clearly shown the route to one of the great technological marvels of the future.

"TAR-ZAN"... OR IS IT "ZUN" AS IN "FUN" by Stan Vinson

When Burroughs fans get together the question often comes up as to the correct pronunciation of "Tarzan". Of course there is only one way to know and that is from Burroughs himself.

We have the answer to this question in a letter dated December 20, 1934, to:

The Literary Digest
351-360 Fourth Avenue
New York, New York
Att. Mr. Charles E. Funk

My Dear Mr. Funk:

Replying to your letter of December 11.

Tarzan is pronounced with the accent on the first syllable--- the first A as in arm, the second A as in ask. This is supposed to be the correct pronunciation, but personally I and my family have always slurred the second syllable, pronouncing it as though it were spelled zn. Very sincerely yours,

Burroughs

Notice this is signed "Burroughs". Probably a very rare autograph in this form.
diadem until it seemed to take command of her. The jewel seemed to grow larger and larger, until the entire room was one brilliant splinter of light. Suddenly she seemed to be falling into it.

As for Tarzan, he carries out his assignment during the war, all the time haunted by the mystery of Jane's disappearance. Convinced that he may be of help, Tarzan goes to California to call on Jason Gridley, the scientist who once journeyed with him to Pellucidar. He tells Gridley his story, and shows him the diadem. Tarzan tells how he had the gem examined in Amsterdam and was told there was nothing like it on earth. Also no one on earth could translate the hieroglyphics inscribed on the base of the diadem. Gridley, who had once been in touch with Mars via his famous Gridley Wave advises Tarzan to call on a man named Jules Almright Carter of Virginia to help. Gridley tells Carter that Tarzan is the favorite nephew of a world's most famous man.

A week later Tarzan is back, and insists that Gridley build him a space ship to take him to Mars. What decided him was a manuscript written by John Carter himself that mentions a diadem worn by a race of warriors who fell to his death in an ice crevasse in the book "Warlord of Mars". This diadem was supposed to have mystic powers, but legend had it that there was once in existence an even more powerful one worn by the original Issus (not the one whose false religion was destroyed by Carter).

We find a breakdown in one afternoon. It took years, and almost the entire treasure in the vaults of Opar to construct a one-man ship made of that marvelous metal, Harbenite, which is found only in the Wiramwazi Mountains of Africa. And Tarzan was off to Mars in his search for Jane, and incidentally, La of Opar.

Meanwhile Tarjo is not letting any grass grow under his feet. He searched for a weapon to use against the Warlord and found it. In "Gods of Mars" John Carter unmasked the false religion of Mars, and incidentally made a lot of enemies. What Tarjo saw, and apparently ERB did not, was that while this exposure was false religion it did not say anything for it. It left a world of loose ends, with half the world not knowing where to turn for consolation, and the other half, convinced that John Carter was the arch-blasphemer of all time.

Putting this confusion and resentment to his own ends, Tarjo joined forces with Zithad, the Dattuwid who según Kar Komak out to find A Thern, but no longer holy who saw himself as the logical successor to Matai Shang. A fourth member of the team was one Rhanas Ghol, who was not a Barsoomian at all. He was a subtly alien kind of humanoid with a bluish skin, and who possessed a third eye, which gave him the power to discern the false religions of the false religions. He and his kind were the last remnants of a race that once inhabited the destroyed planet between Mars and Jupiter, the same cataclysm that destroyed Atlantis. They lived deep in the southern hemisphere of Mars in the city, Zumer, at the top of the three mile high escarpment of Tarnath, itself built of the umber of the ancient city of Tarnath.

Each of the conspirators joined for their own reason, the first three hoping to emerge top dog after the coming conflict, and the Zumerian for his own dark reasons. They set up shop in the Valley of Tarnath.

John Carter is not completely asleep—and as time went on became aware that something was in the wind. He sends Kar Komak out to find what was up, even to finding and penetrating the secret stronghold. Kar Komak takes a man flier, and as a starter scouts out the city of Lother.

He is captured by black men and taken to Tarnath. Representing himself as a panthan, or soldier of fortune, he is offered the choice of death or enlistment.

Meanwhile the conspirators had a big argument regarding the establishment of the false religion, and even the man who said the true Issus would someday return with her mate, Thares Pthan, to rule, and that they would be of the white race. Tarjo being white figured he filled the bill, so he retired to his secret chamber to play a game with which he used to while away the hours in his centuries at Lother. He attempts to bring some of his Barsoomian friends to help. This time he concentrates on the Diadem of Therns coincidentally with La's fascination with its counterpart on Earth. La is drawn to Mars. Tarjo, under the impression he had created La, tries to embrace her and she shocks him by turning on him like an animal, and almost tearing out his jaw with a single blow. He full of enough for him and he sends her to Lother under guard until he can decide what to do with her.

Kar Komak falls under suspicion as a spy and is forced to escape. Once again he returns to Lother, and decides to go to Tarjo's old secret chamber and try to give substance to his own theory, that La is the result of the smiles of the Jheran. Seven more bust in—and then both parties are attacked by green men. Kar Komak is kayoded, and La is carried off.

The Sacred Council, otherwise Tarjo & Co., assemble and once again a big argument ensues about Issus, and who shall be Thares Pthan. Tarjo again suddenly feels the power upon him and tries again with the help of his friends to free Jane. Tarjo keeps her secluded and under the power of his mind, while he builds up in her the illusion that she is the true Issus.

Kar Komak is rescued by a band of Lost People—former pilgrims to the Valley Arc who are not accepted back in the land of the living—has lost his strange companion in life, but until one day she is captured by a white ape. Instead of killing her immediately, he is in a mood. Struggling with a dim thought, he speaks to her, and she understands. It is the language of the great apes, the common speech of Opar. Churg, the ape, wants to know how he can become a caernoff, with the virtues of the caernoff at question at all, he is well on his way. She promises to show him the way, and then starts the cult of the Flaming God. It starts with the white apes, then green men, and gradually attracts other species.

About this time Tarzan lands on Mars after being marooned at the valley of the wind for a year. Almost upon leaving the space ship he becomes aware that he is being stalked by a carnivore. As the thing charged he leaped aside and found he sailed nearly 100 feet. It was a ten-legged banth, or Barsoomian lion. Tarzan lands rolling, and when the banth leaped Tarzan kicked up with both feet into the air and with a quick movement of his body, pushed in its whole face—right to the back of its head. Then the creature's mate appeared from nowhere, but this time Tarzan didn't mess around. He pulled out his .45 and pumped ten shots into it. Then he set out to find the civilization of the red man as a starting point to find Jane and La.

He encounters a band of white apes, and finding he cannot bluffs his way out of a fight, he is again surprised at the havoc he creates. Single-handed he defeats four of these fourteen-foot monsters. Later, being hungry, he kills a wild thot for food—breaking its skull with his fist. He gives out with that which was never heard in Barsoom. The white apes, the caernoffs, all keep on apace with the warrior. He fights valiantly, tossing thanats and riders around, but is overcome and
carried off. The green jeddak confiscates his knife and the Great Star of Issus.

La meets up with a mysterious ancient red man who is the greatest living authority on Barsoomian antiquity, and learns from him the legend of Issus. By this time her followers are beginning to call her Issus. She comes to the hidden valley of Lothar and makes it her headquarters, joining forces with the Lost People she finds Kar Komak. While talking together they pass away, and La is troubled by its familiarity. Later the party is attacked by green men. La is carried off and Kar Komak is kayoed again.

He regains his memory and then meets up with Carthoris and Vad Varo (Ulysses Paxton). They are hunting for a missle from space tracked by the Heliobars. They meet a lodoar that has a five-year-delayed report on the secret hideout and the preparations of Tarjo and his cohorts, and then leaves in search of La.

Tarzan is confined in the pits beneath Lothar, now the headquarters of the green Torquasims, to await the Games in company with other assorted Barsoomians. In the game against man, and against beasts. Finally La is thrust into the arena with a bantam, and Tarzan takes a hand. He breaks loose and kills the bantam. A zitidar, bigger than an elephant, is let loose and Tarzan again gives the cry of the bull ape, which is answered by a pack of white apes who come charging down. Then they are chased by La's apes, and they, together with the released prisoners make things hot for the Torquasims. Tarzan lures the zitidar into crashing the pilings supporting the jedjak's box, bringing it crashing down. The beast tramples the jedjak and his party and then turns on Tarzan, who picks up a twelve-foot piece of piling and2 propels the zitidar, and puts the other down. Tarzan then pulls out his sword, and disarms his opponent. Tarzan jams the pile into it. Exit zitidar.

By this time the cry of "Thares Pthan" is heard on all sides. Tarzan is puzzled thinking they are saying "Tar-zan", La tells him that Thares Pthan is the mate of Issus, and that she is Issus. She again offers him love and he turns it down. She is furious. In a fit of rage, she pulls off the diadem, which La recognizes. About this time Kar Komak offers her his love but finds she loves Tarzan, and is insanely jealous. He draws on Tarzan but is easily overcome. Tarzan tries to explain but La gets angry at both of them and calls on her followers to seize them and they are chained. They are taken to the Golden Thrones on Tarzath in order to gain entrance to the fortress, and are imprisoned. Here they stay only until it is expedient to escape. They do, but only after Tarzan manages to cut off the Synthian man. Tarzan falls half a mile into a lake and comes out of it alive; the synthetic man is torn apart by the impact. About the same time John Carter's fleet attacks, but is grounded by the secret weapon of the First Born—a nullifier for the Eighth Barsoomian Ray, that gives buoyancy to the Martian ships.

John Carter has to talk with his old friend Tahu, the yellow man, and several other jeddaks and agrees that if the assault is successful there will be a great council of all Barsoom to bring about a religious reformation. In return they pledge unqualified support. John Carter then leads a commando party mounted on malagors, the only birds on Mars. His mount is shot down and he falls to the ground, but just in time to rescue the unconscious Tarzan.

The two men size each other up, but Tarzan is at a disadvantage since John Carter is disguised as a red man and wears the simple harness of a panthan. John Carter however is uncertain who this man can be, since he doesn't quite square with any known Barsoomian race. When he asks Tarzan's name, Tarzan tells him some men call him Thares Pthan. Instantly John Carter draws on him, but Tarzan knocks aside his sword arm, trips him, and disarms him. John Carter grins confidently; never had he met his match on Barsoom. He grasps Tarzan, but to his surprise he is pinned with apparent ease. Tarzan however is astounded by this man's strength. For a moment it seemed to him that he had come to grips with a white ape.

Anyway they come to a truce, since it seems they both admit to being opposed to the Holy Alliance of Tarjo, and Tarzan lets him up. A rescuing party of men mounted on malagors fly in, and when, up come the golden throne, La, Tarj- kas, and their army La hails Tarzan as Thares Pthan—and John Carter scowls and bides his time. He intends to learn this man's game and deal with him later, if he doesn't like what he is doing.

By this time Tarnathian soldiers high on the surrounding cliffs were starting to flood into the valley where they were. The followers of La and Tars Tarkas however, kept up a fire that drives them off. Tars Tarkas penetrates John Carter's disguise, but doesn't give him away. Tars Tarkas told John Carter that he was satisfied that La was the living Issus, and intended to take her on the Iron Throne. John Carter tells him of the intended reformation, and they patch up their differences.

When La announces that Tarzan is Thares Pthan, Tarzan disclaims this, saying that his mate is she who now sits on the throne of Issus in Tarnath. La is again outraged and tells Churg to take Tarzan prisoner. As the ape moves forward, Tars Tarkas Rums out of range and Oldrakh with a thought projection of Kar Komak. They pretend to fight and Churg is overcome, but Tarzan is in turn overcome by more apes, and bound. John Carter and Tars Tarkas adopt a hands-off policy.

Meanwhile the hordes are still emerging from the cavern, but now they are hurrying. It is flooding from below and could conceivably fill the wall locked basin, drowning all. There is only one chance to open the gate in the wall. John Carter and Churg try to climb upward to the top of the battlements. All realize that he is hopelessly outnumbered, and wish it were possible to batter down the gate, La is inspired to release Tarzan as their sole hope. Tarzan takes Tars Tarkas' sword and makes the mightiest running high jump ever seen on Barsoom. He struck the wall within twenty feet of the top, and ran
up the remaining distance. He discovers John Carter holding off a dozen warriors. Tarzan is no swordsman, but makes up for it with the sheer power of his strokes. Together they hold off the entire garrison. Each now has an inkling of the other's identity.

They reach the gate but the lever is rusted and John Carter cannot move it. Tarzan strains with all his might and the gate slowly opens. Through the opening pour the Tharks and Tars Tarkas. Now the three mightiest warriors on Mars battle shoulder to shoulder in the heart of the citadel, while in the outer world aerial navies battle cities, and the ground forces of Helium attack the outer defenses of Tarnath.

A great white ape wearing a turban enters the fray on the side of the mighty warriors, and when he speaks, fulfills another prophecy. The Alliance forces commence to surrender on all sides, and Tarzan gains the throne room. Tarlo is there but there is no sign of Jane. Tario attempts to take Tarlo, but the short, primal savagery of Tarzan's make-up prevents this. Tarzan takes him by the throat, and demands to know where is his mate?

Then the old red man, Vor Koros, appears again, comes forward, and announces that the moment of prophecy is at hand. The true Tharsis Pthan is present, and the true Issus comes. For the legend states that though not brother and sister, they are of a single parent: one of the flash, and one of the mind. Tario has admitted that Kar Komak is his creation, and now Vor Koros reveals that La is Tario's daughter. Vor Koros reveals that he is Dras Krhal, the oldest Zumerian alive, and that he has given his life to finding immortality when he created the Great Star of Issus at the time of the Cataclysm, Also at this time Tario's daughter, in company with some First Born had fled to Earth.

Kar Komak now casts off the semblance of Churg and takes the Great Star from the turban. He and Tario have a contest of wills, using their great gems as amplifiers. The lesser one shatters, and Tario is overwhelmed and falls dead. Kar Komak and La clinch. The opposing forces agree to an armistice, pending a council of Reformation, and Tarzan is left without Jane, who was abducted by Zithad and Sardon Dhor. He swears to find her.

In an appended letter to Palmer Byrne says that at this point he could branch in one of two directions. Either wind the story up quickly by having Tarzan rescue Jane, and then have Carthoris come up with a space ship to take them home, or he could prolong the chase by having Tarzan pursue the villains to Venus, which would bring Carvon Naper out of the picture. Here Byrne explained La's secret curse of the ages. Because she was not like Earthwomen, her curse turned out to be a blessing on Barsoom. At the end of the story Tarzan and Jane would be shown her new pride and joy. An egg!

* * * * * *

When a writer sets out to take over the further adventures of another author's certain established characters, in addition to standing ordinary criticism applied to his story, he must also stand some comparison with that author, and with the way he handled that author's characters, and the previously revealed canon. (To borrow from the Sherlockians.)

Now Bloodstone wrote a darned good story, and packed a lot of stuff into it. Like Burroughs, he kept me so interested in the story I hated to set a book back in itself. But with one big weakness of the story as a story. Bloodstone drew so heavily on the canon that he kept me more interested as a fan than as a reader. Practically all of Burroughs' books, connected as they may be, yet may be read singly as an isolated story, without previous knowledge of any other. It seems to me that Bloodstone wrote more for the aficionado than for a brand-new reader. Therefore there is bound to be some lack of interest, or orientation on the part of one who hasn't read some fifty-odd previous Burroughs books.

"Tarzan on Mars" is a big sprawling book, containing much extraneous matter that slows down the action. This extraneous material is, I suppose, fat, that could be trimmed off at an editor's discretion. While all of it is stuff to add to the main story as local color, it does cause it to drag in many places. Bloodstone, being much more wordy than Burroughs, is unable to match ERB's headlong story telling pace. Bloodstone is no Burroughs, but this, I hasten to add, is not necessarily a reason to debar Bloodstone from writing stories using the Burroughs characters.

Bloodstone's somewhat slower style enables him to explore some interesting situations and incidents a little more fully than was the wont of Burroughs. The latter sometimes irritated me by his habit of dropping a few words that lead to endless speculation and exercising of the old sense of wonder, and then proceeding to exploit it just a little further, raced blithely ahead, leaving the reader, perforce, to follow.

Bloodstone worked overtime to introduce into his story as many characters previously created by Burroughs as possible. He even created a few of his own, such as the non-canonical Jules Carter, the favorite nephew of the Warlord, as a stock character. Actually, the nephew of John Carter was none other than ERB.

Throughout the book Bloodstone sprinkled little incidents and conversations between known Burroughs characters, who thereafter played little or no part in the subsequent proceedings. It is nice for a true Burroughs fan to meet again, even if it is only in passing, one or two of the more trifile disconcerting to find alive and kicking, at least two that were snugly done-in long ago.

Although Bloodstone is more than ordinarily familiar with the canon, and is reputed to have a card-file of all the characters and events in the Burroughs books, he yet makes quite a few mistakes. He seems to have read it, or possibly forgotten "Golden Lion" and "Invincible." He speaks of the farewell of La and Tarzan in "Jewels of Opar" as the last meeting between the two, prior to "Tarzan on Mars." We also find Cadj, still lusty after La, contending she is long overdue to take a mate. I think the events chronicles us and Locales through it. La did marry Cadj and as I mentioned earlier, had his face removed by Jad-Bal-Ja. John Harwood, a knowledgeable Burroughs fan, reminded me that in "Invincible," La had gone out into the jungle and met the members of Peter Zveri's expedition, thus refuting Bloodstone's statement that she had never come in contact with the civilization of Barsoom. Harwood also points out that on the very first page Bloodstone states that La's hair was raven black, whereas it is actually golden-bronze. Zithad, the black Dator of the First Born struts and bellows throughout "Tarzan on Mars" in spite of the fact that John Carter's blade found his heart in "Llama of Cathol." I can't understand this, if Zithad is leader of the First Born, whatever happened to Xodar? He should have had a lot to say about any religious reformation on Barsoom.

Speaking of the First Born, I feel it was a mistake on Bloodstone's part to try to establish a kinship fact in "Llama of Cathol." I can't understand all of it if Zithad is leader of the First Born, whatever happened to Xodar? He should have had a lot to say about any religious reformation on Barsoom.
that would need to be explained away.

I like the idea of transporting La to Mars to find love at last with Kar Komak, but Bloodstone should have made it clearer that Kar Komak was not completely the creation of Tario. We have Kar Komak's own testimony in "Thuvia" that he had a previous existence long ago in Barsoom's antiquity, when the white race was supreme.

Bloodstone also gets a little confused when he tries to show that the Atlantis-like language is identical with the modicant form of Barsoomian. Vor Koros, the Zumerian, speaks to La in this tongue and she understands. Then we have Tarzan haunted by a sense of familiarity with Barsoomian, and when La speaks in plain Martian Tarzan recognizes this as identical in sound and structure to the language of Opar. Now both of these happenings are odd, it wasn't so odd, the implication was obtained that La arrived on Mars not knowing the language, and only picked it up gradually after her capture by the green men, and later as she gathered followers for her cult of the Flaming God. And this without the obvious benefit of knowing Oparian.

On the other hand I don't recall that Tarzan ever had the opportunity to learn Oparian since he always conversed in the language of the great apes on his visits there.

On page 10 Bloodstone attributes the immunity of Tarzan to the effects of Time to his lifelong exposure to that same natural environment which guarded all other creatures of the wild from the adventitious effects of decay and death. Tarzan's prolonged youth and virility is actually attributable to quite another source, according to Burroughs' explanation, but I find Bloodstone's hypothesis to be sheer nonsense. Beasts of the jungle, those few who survive the ordinary hazards of everyday living, grow old and decrepit, even to a very old age.

The events in "Tarzan on Mars" apparently take place just previous to, and after "Tarzan and the Foreign Legion", yet there is no evidence in the latter book to show that Tarzan was unduly upset over Jane while he was in Sumatra, such as he surely would have been if she had disappeared under the circumstances narrated in "Tarzan on Mars". Of course, it's perfectly clear just when all these things were happening, and just how long it took them to transpire.

Harwood puts it this way: "One thing that isn't clear is the time element between the disappearance of La and the arrival of Tarzan on Barsoom. The two women disappear just before Tarzan is called to London at the conclusion of the serial. Several years later, the lands on Mars. Say he went to London in 1939 and was released from service in 1945. This would be six years. It takes him a year to make the journey to Mars. Seven years. How long did it take to build the space ship? A year? This would bring the time element to eight years. But could a space ship be built in that short a time?"

One of the most noticeable differences in the writing of Bloodstone and Burroughs is the almost total lack of humor in "Tarzan on Mars". Bloodstone wrote the book with deadpan seriousness. ERB had a quiet and offbeat sense of humor pervading almost all of his writing, although at times it was pretty feeble. ERB was specially fond of making a funny. I could only detect two instances in "Tarzan on Mars" where Bloodstone was humorous, and oddly enough, both instances were pure Burroughs. The first was on page 11, where Tarzan met Nkima and translates the monkey's chatter to the two Englishmen. The other occurs when Carthoris and Vad Varo found the ape man's town and blood-stained clothing after his fight with the white apes. Carthoris expressed the hope that the poor fellow had mercifully fainted before being killed.

Bloodstone did a good job of presenting the personalities of the various Burroughs characters, and handed Tarzan best of all. I really felt that this was my old friend of the jungle. John Carter failed to project, because of the lack of the first person. Harwood says, "In some parts you really got the feeling that ERB did write some of the scenes. These instances are scattered all through the story, but if you were to divide the book into two parts, most of the scenes that are most Burroughs-like would occur in the second half, after Tarzan arrives on Barsoom. The story drags most in the first half. In most of the Tarzan books the ape man gets into action much earlier in the story."

Harwood, a stickler for accuracy, has this to say about Tarzan's exploits on Mars: "At first it may seem that Bloodstone is exaggerating when he tells of Tarzan crushing the skulls of green men and tossing thongs around, but I believe that the effects of the lower gravity on Mars would affect the power of an echoesman's muscles. As the author points out too, the lesser gravity of Mars would result in a lighter bone structure for the inhabitants of the planet.

"However, I question the ability of Tarzan to leap 70 or 100 feet. A man from Earth can jump about 2½ times as far on Mars. The earthly record for the standing broad jump is about 12 feet, and the equivalent on Mars would be about 30 feet. When the baron climbed Tarzan, he gave a tremendous leap and surprised himself by landing a hundred feet away. According to the record just mentioned this would be impossible. Of course, we have Burroughs' testimony that Tarzan was several times stronger than a circus strongman. Even so, I doubt if he could jump double the distance record for Earth. Even if it could be done, this would bring the running broad jump to only 60 feet. There is no mention in the story of his making a running broad jump to escape the baron.

"In that spectacular scene at the beginning of the attack on the escarpment at Tarnath in which he scales the wall weighted down by the heavy longsword of Tar's Tarkas, he makes another tremendous jump. The wall was "a full 100 ads high" (or about 97 Earth feet). Tarzan took a running jump and landed about 20 feet below the top for a high jump of about 77 feet. Now that great athlete John Thomas jumped something like 7½", and we'll have to assume that Tarzan can better this without even trying. Give him 8 feet. Accordingly, 20 feet could be easily matched by an ordinary, or about 57 feet, which is more than the total height of Tarzan's leap. And not only did he reach this height, but with the momentum he was able to continue running upward until he reached the top of the wall."

To briefly wrap it up; Bloodstone packed a lot of stuff into his yarn and gave a deeper story in some ways than the most anything Burroughs had done. It was a creditable effort, and a real labor of love—even more so since it looks as though it will never be published. I am happy to have had the opportunity of reading the further adventures of Tarzan, even if they weren't by the Master.

If "Tarzan on Mars" ever does get published it should only be, I feel, after we have ERB's final word on the war and post-war adventures of Tarzan. And I would like to learn what happened to John Carter on Jupiter before finding him back on Mars fighting a global war. So, subject to the possibility that Burroughs Inc. will someday publish ERB's final work on the subject, some necessary revision, I am prepared to accept Bloodstone's book on a deuto-canonical basis.
Stu Byrne has done an amazing job of recreating Edgar Rice Burroughs' classic characters, and a still more amazing job of tying together the many loose ends in both the Tarzan and Martian series by revealing La as the true Issus. I am not sure that Burroughs himself, in his later years, would have shown the imagination to do this.

I do, however, feel—and I have read more than half of Burroughs' own Tarzan books, nor some of the later Mars and Venus stories (which Byrne seems to draw into the grand system, as Burroughs had previously drawn Pellucidar). I cannot, therefore, tell whether "Tarzan on Mars" is inconsistent with anything that has been written about Tarzan or Barsoom. If it does, that doesn't necessarily disqualify it if ever it is published. The main flaw is the handling of time. Burroughs had the handling of parallel stories down to a fine art, and made the most of shutting back and forth from plot to sub-plot as a way of building up suspense and leaving his heroes and heroines in deadly peril that might not be resolved for several chapters later. He does this technique legitimately and quite well, but he also shuttles back and forth in time in a way that I do not recall Burroughs having done, so that the reader is never quite sure when events are taking place, especially between Barsoom and Earth.

Although the critics insist that Burroughs' books show no characterization, the fact remains that Tarzan and John Carter are among the very memorable characters of fantasy and science fiction. Byrne's "Tarzan" and "John Carter" and "La" do not seem as real as Burroughs'—at least, as I remember Burroughs. For example, it seems to me that completely out of character, and quite out of place, should have written quietly for six or seven years, until the war was over, before making any attempt to find Jane. He is shown riding away to London the day after her disappearance, then taking up the hunt years later as if no time had intervened. It would have been far more plausible to show him making attempts during the war to find her, even through several chapters later. He consulted enemy scientists, and certainly to the point of getting in touch with Gridley so that the rocket-building business might be going on secretly, and with the help of German volunteers (did Tarzan have any German friends?) side-by-side with our military program. It is even more plausible that if La had managed to put off mating for 50,000 years (Laying sterile eggs all the while, I suppose), her failure to do so since meeting Tarzan should have whipped up quite such an insurrection among the priests of Opar. Couldn't some prophecy be invoked to bring matters to a head—since this is a book of prophecy anyway? Maybe something that happened in Tarzan's last visit would call for immediate action according to the laws of Opar—such as the rediscovery of the Great Stairs of Issus and the beginning of the book, rather than at the time of her disappearance.

With our present knowledge of rockets, the assumption that the acceleration of a take-off would kill Tarzan is ridiculous, and destroys the desired effect of added suspense. Eliminating food is in the same category; Gridley should have called up Will Ley. It is rather ridiculous, on the other side, that no nullifiers should have been built by the Alliance in seven years. The purpose, of course, is to have a single nullifier that John Carter, Tarzan, Tars Tarkas, and everyone else must try to destroy—but that objective becomes completely lost, and they are diverted to other things, so that the capture of the nullifier takes place off-stage. Burroughs was never strong on having his bits of action take place where the reader couldn't watch the fun.

Finally, good swinging action frequently breaks off into the stiffest of Victorian rhetoric when the characters begin to talk. Since Burroughs was a Victorian, in effect, he had the same stiff dialogue himself, but it has loosened up with the years. I don't know if this was Byrne trying to imitate Burroughs' style and overdoing it, whether it is Byrne's own failing, or whether somebody else—Ray Palmer, perhaps—has done some rewriting of the manuscript we have here.

Palmer's big question—should a modern writer be allowed to carry on the adventures of Burroughs' characters in books, as they have been in the cartoon strips—"Tarzan on Mars" is an imposing demonstration that it can be done and should be done, once the original books have been put back into print again. "John Bloodstone" is probably the man to do it, too, given some editorial counseling by a Potomac of Burroughs'旁边 not to stop the book exactly where it is, with Jane missing but the La-Kar Komak plot settled, would be right in line with Burroughs' own early Mars books, which were one long cliff-hanging serial. Perhaps there is a Pellucidar inside Mars, with other strange races and monsters, to which Sichad and Sardon Dhar flee with Jane, pursued by Tarzan and his new pals.

—P. Schuyler Miller

The story reads creditably and well. It is probably not the top notch Burroughs seen in CHESSMEN OF MARS or MASTERMIND OF MARS or THE MOON MAID but it is by no means inferior to the average Burroughs story.

The author knows his Burroughs and made a definite contribution with the story. However there is a major flaw in the story as written—John Carter is very weak compared to Tarzan and this will not please the stern admirers who consider John Carter no less sacred than Tarzan. The author should eliminate John Carter by disease or imprisonment by his enemies so that Tarzan can keep the scene entirely with John Carter's son taking over the parts now portrayed by John Carter. It is probably not possible to make two John Carters and Tarzan and do them equal justice except in the hands of a master craftsman. It is doubtful if even the master himself could have successfully handled this. Consider the story TARZAN AT THE EARTH'S CORE where David Innes does not intrude heavily into this Tarzan story. Something of the same nature should be done to TARZAN ON MARS.

Also there will be an objection that the story does not explain the situation as left by the last published Tarzan and John Carter stories. The author should make an attempt even if only a footnote so that some degree of inner cohesion can be kept in both series.

—Edward Wood

I have finished TARZAN ON MARS. My reactions to it are rather mixed.

As an adventure story outside of the Burroughs Mythos, it is better than average, but it is impossible to ignore the other elements.

First of all, I doubt if Burroughs would like the frankly religious element in which it is cast, particularly as to the disintegration of the Martian cultures without something to believe
in—as I recall a record of wars, cruelty, etc. under the religious dominance of the Barsoomian history as depicted by Burroughs certainly contraindicates the theme of Bloodstone's (Byrne's) thesis. The Armageddon so described is a theme used before. I have never seen such a military build-up with such a climax either. The Characterization of Tarzan, John Carter, etc. are poorly done in this story. Also there are a number of logical points that do not follow the ERB books at all. The last John Carter story, SKELETON MEN OF JUPITER, certainly is not taken into account.

Personally I am sorry this book was ever written—but it is a fact, and as such would like to have a copy of it, if ever privately printed. I do not believe it should ever be published to the general public, as it would injure the sale of the other Burroughs books.

I noticed several points that are false to fact re. Tarzan, e.g., it is mentioned that he wasn't much of a swordsman, in fact Tarzan was an excellent swordsman as shown in the Tarzan books. You know them as well as I do.

La was a powerful character according to Burroughs—completely destroyed in this book as an individual and lost to fiction thereby. The title could be almost anything, as the part played by Tarzan, John Carter, etc., is certainly minor compared to the over-all theme.

I wonder what you think of the book?
—Thomas S. Gardner

A few years ago, Ray Palmer let me borrow the manuscript of TARZAN ON MARS. It has been looted to many fans since then for the purpose of obtaining their opinions of the story. You have just read some of the opinions of a few of these fans. Some like it... some don't. I notice, however, that even the ones who do not approve of TARZAN ON MARS entirely would like a copy of it in their library.

This, in my opinion, is not a great Tarzan story... nor is it a good John Carter story... and, as Al Howard and the late Tom Gardner point out, it does not dovetail with the histories of Barsoom and Tarzan's Africa as detailed by their chronicler, Edgar Rice Burroughs. I, too, believe it should never be published for sale to the general public. But I also believe that the work that has been done into the writing of the story should not be in vain. The story could be, as Ray Palmer claims it is, a labor of love. If so, then it deserves some recognition, if only from the Burroughs Bibliophiles.

Ray Palmer has been kind enough to grant me permission to publish the story. ERB, Inc., will allow this only on a limited, non-profit, basis for Burroughs Bibliophiles only. If you are interested in obtaining a copy of TARZAN ON MARS, or you are a subscriber, share the expense plan, just send a postcard mentioning your willingness to do so to Vernell Coriell, House of Greystoke, 6657 Locust, Kansas City, Missouri 64113. The project will not be considered without the backing of at least a third of the BB membership.

Well, it's finished! As the great apes gather in Oakland for this year's Dum-Dum, I wonder if this is worth missing it for. I had hopes of having BB #5 ready to take to the Dum-Dum with us... but first things first, so we wrap up the issue by staying home. We miss the Dum-Dum and you gain a BB take a good look at it, because it is unlikely that you will ever see the likes of it again!

Paul Spencer's excellent article about THE RED STAR OF TARZAN will give the ERB "detectives" something to work on. I believe their findings will go something like this: ERB's original version of FORBIDDEN CITY was written as a radio drama, starring Carlton Kadell, entitled TARZAN AND THE DIAMOND OF ASHER (it is ASHAIR in the book). The 1934 radio serial was turned into a novel in 1937. ARGOSY magazine published it as a six part serial beginning in the March 19, 1936 issue, with an editorial change of title and considerable rewriting by the editor. ERB's own version appeared in book form as TARZAN AND THE FORBIDDEN CITY.

This brings up several other interesting questions. Is TARZAN AND THE FORBIDDEN CITY actually a rewrite of the 1934 radio serial, then where is the original manuscript of TARZAN AND THE DIAMOND OF ASHER? Since TARZAN AND THE FIERCE OF TOHR is an original radio drama by Edgar Rice Burroughs, then ERB must have furnished United Feature Syndicate with a manuscript from which the Rex Maxon daily TARZAN strip was adapted. This is also true of TARZAN AND THE MAYAN GODDESS, which was adapted from the motion picture, THE NEW ADVENTURES OF TARZAN, for which ERB did the original story. Where are these manuscripts? Where is the manuscript for MURDER AT THE CARNIVAL? It becomes pretty obvious that all of ERB's unpublished manuscripts have yet to be discovered.

It is also interesting to note that the daily adventure strip version of TARZAN AND THE FORBIDDEN CITY follows the magazine version rather than the book. And since ERB must have furnishe the original material for TOHR and MAYAN GODDESS, then the daily adventure strips of these stories become "first publications", which completely does away with the idea that ERB never furnished "original" material for the "comic" strips. Since the second issue of Dell's TARZAN one-shot #161, was based on TOHR, then it is also possible that the second TARZAN one-shot, DEVIL'S GONE, #134, was based on "original" material by ERB. Fans who have refused to accept "comic" strips and books as genuine Burroughs may have to take another look at such material.

8, 12, 13—Illustrations by SAMUEL CAHAN for ARGOSY (1938)
10—RUDOLPH BELLASI for ARGOSY (1938)
11, 15, 16—Top rt. JERRY BURGESS; bot. lt. DALE WALKER
17, 18—DALE WALKER
19—Photograph of TARZAN reproduced from LOOK AND LEARN by arrangement with FLEETWAY PUBLICATIONS, LTD., LONDON, ENGLAND, by permission of HILBERT BURROUGHS; art by SHIBUKA; TARZAN’S FIGHT TO THE DEATH excerpted from chapter 11 of TARZAN OF THE APES
36, 37—courtesy BOB HYDE

CREDITS
38—courtesy DAVID B. TURNER and DALE WALKER
16—ROY C. KRENKEL
51—ADRIAN SARFF (scene from chapter 8 of TARZAN OF THE APES)

This magazine is copyright © 1964 by Edgar Rice Burroughs, Inc., only as a precaution to protect the owners of the Edgar Rice Burroughs stories, copyrights and trademarks. Edgar Rice Burroughs, Inc., is in no way responsible for the editorial contents of this publication. Address all communications regarding this publication to the publisher: Vernell Coriell, 6657 Locust, Kansas City, Mo. 64113.