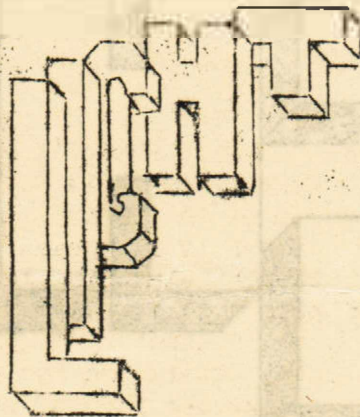


Hurter

WHEEL



MARCH 1944



Number 31

March 1946

C O N T E N T S

FICTION

Carey's Diminutive Digestive Pills
by Barbara E. Bovard----- 4

And It Came To Pass
by Leslie A. Croutch----- 6

ARTICLE

Of Rags and Stuff by Cpl. Milton
"Asteroid" Rothman----- 7

DEPARTMENTS

Light Flashes by The Editor----- 3

Mail Box- the readers----- 3

In The Realm Of Books----- 9

ART

Back cover by Bob Gibson-----12

COVER ILLUSTRATING "CAREY'S DIMINUTIVE
DIGESTIVE PILLS" BY W. ROBERT GIBSON.

-I-

LIGHT: A Light Publication, mimeographed
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Leslie A. Croutch; Art Staff: W. Robert
Gibson.

-I-

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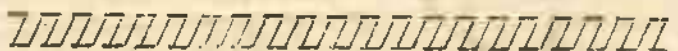
COMING IN THE NEXT ISSUE

CAREY'S DIMINUTIVE DIGESTIVE PILLS by
Barbara E. Bovard. Conclusion of this two
part serial in which we see what happens
to Mr. Bean.

ONE MEAT BALL No, it's not the Andrew
Sisters. It's just Maestro Croutch again,
playing hob with an accepted title and
coming up with something entirely diff-
erent. We guarantee this to be another
gastronic delight.

FANTASIA MALARIA by Sgt. Lamb. The Old
Sarge follows up FOOD! with another
rather sarcastic commentary on army life
as laid against the background of the
Italian scene. Not fantasy, but then you
can't read fantasy all the time!

If a short article by Mrs. Jessie Walker
which we are sure will be as entertaining
as those in the past.



Yes, it's coming! In the July issue of
LIGHT will be printed Leslie A. Croutch's
"Horby's Flying Pig". It's far from ser-
ious so make a date with your doctor to-
day to get immediate medical attention
just in case you bust a rib or two laugh-
ing.



Circulation this issue- 60 copies.
Less than 10 unmailed ones left per run.
That means there is still room for a few
more discriminating, mature, readers.

It looks as though Gibson is here to stay. Letters commending him on his cover last month came in in a regular avalanche. One writer said that in his opinion this was the best cover he had seen on any fanzine, barring lithoed ones. Another asked if he was to appear regularly. The answer to this is yes, if he agrees. LIGHT isn't going to shove a good cover artist off the cover in favor of someone else not so good. It's be foolish to do so. In answer to requests for more Gibson, there is a back cover this issue. If possible, this will be a feature from now on. Gibson asked for all art work in the files here to be returned to him to be reworked directly on stoneil.

Ted White's story, "The Last Sacrifice" went over better than was expected. Now that White is home, he comes up for discharge on February 5th., he has half promised that he might get back into the swing of things and do some writing. However,

as he is lacking a typewriter it is not to be expected for some time yet.

Regarding Gibson's cover this month. Gibson says one of his sisters, who is an artist, aided him with the figure of the fairy therein. Gibson admits he isn't so hot on the human shape, and needed her help. Maybe we have a "Magarian" team of the amateur illustrating world here.

Palmer is in for some kidding on his Deros, you'll notice on looking at the rest of the Gibson work. Your editor accepts no praise for suggestion or otherwise.

A plea: WILL THOSE WHO READ LIGHT PLEASE SEND IN YOUR NEW ADDRESS WHEN YOU MOVE? DON'T PUT IT OFF. AS SOON AS YOU KNOW IT, SEND A POSTCARD. A long period of absolute silence can result in being dropped from the mailing list, you know, as several have been done, starting with the January issue.

The Old Sarge, Norman V. Lamb, is expected home latter part of this month (January). This will mean the mighty minds who have helped with LIGHT so much in the past, will all be home.

A rather long readers department this month. But there were so many grand letters on hand that couldn't be ditched. But as this section has always been so popular, your editor knows you'll forgive him this time.

The Now

LIGHT MAIL BOX

(where the readers try to run the mag.)

December 31, 1945.

Dear Les-

Miss Bovard's poem (All Girl Issue) is very good; it has style and originality. One of the readers, in the Jan. ish, declares it is "over-ripe". I disagree; even though "slavering fangs" is a bit rich, the poem justifies its use.

"Luana" by Nanek is as good as the many others she has done for the Merrittales. I like her rhyming style here, done like limericks. "The Snake Mother" was a wonderful work by Merritt, and the poetess does not let down.

"Rockets for Atlantis" seems to have succeeded in describing a future war, tho "W. Scott-Elliot" was narrating what he claimed to be Atlantean history. Hmmm-another Shaver? The article was the most interesting part of the ish; she discusses Elliot's ideas in a friendly, observant manner. With such ideas as the latter expressed, one must wonder- did he see them? Did the Atlanteans have such advanced culture?

In the Mail Box Bloch is terrific. That's all. Terrific. His "Anti-Amusement League" letter is a riot!

Harry Jenkin's "Haunted House" has good atmosphere. Though the theme and ideas presented are anything but new, the style of presentation is good.

"Food?!" Another example of the individuality of Mr. Croutch, I guess. Hardly apropos to a fanzine. Interesting enough, though. The amount of food Bob Gibson got is quite incredible, considering how much I've seen given to patients in U.S. General Hospitals in England and on Army Transports.

The article by Mrs. Walker advocating a Universal language brings up that point argued on for many years. Is it necessary? Which language should it be? A new one? It is obvious there are too many languages existent today, considering this is a truly "global", cooperating world. However, I think there should be more than language; English, Spanish and French all have their good points. With several languages, more freedom of expression, more possibility of enriching speech is available. George Bernard Shaw recently put

(see page 7, please)

CAREY'S

DIMINUTIVE

DIGESTIVE

PILLS by

Barbara E. Bovard

(Part 1 of a 2 part serial)

***** "Uf, Doc," protested the little man, twisting his hat in his hands, "yuh
 * * * * * I gotta find some way to make stuff stay down. I just can't eat anymore-
 * * * * * anything. No matter what I eat, it won't stay down; I don't seem t'be
 * * * * * able t'digest anything."
 ***** His distress was pitiful and the doctor made attempts to soothe

him.

"Now, now, Mr. Bean, don't get excited. You're going to be all right. Now,"
 and he drew pad and pencil toward him across the desk, "you just follow this diet,
 and I'm sure that whatever you eat will be digested just as it should. Now, good
 day, Mr. Bean. Thank you for calling." He patted the little man on the shoulder,
 shook his hand, and Bean found himself outside the door in the bright sunlight, bl-
 inking with the suddenness of it all.

He looked at the paper in his hand, sighin. Shoulders drooping, he meandered
 off down the street, eyes on the ground. What has been just told to him was merely
 the repetition of six other doctors. He looked at the diet listed, and his lip cur-
 led. Almost the same thing, word for word! Crumpling the paper, he hurled it out in-
 to the street.

Sighing again, he walked on, shoulders hunched, hands in pockets. He walked
 several blocks before he realized his name was being called. Squinted against the
 glare, he looked ahead, to each side, then back. Nothing met his gaze, and shrugging
 he plodded on. Then he became aware of a tugging at his pant-leg. He looked down,
 and goggled.

"James Bean," panted the elf, "you are quite the most stupid, the most insuff-
 erable, doaf human being I have ever had the misfortune to run into." She ran
 lightly up his leg and back and settled herself on his shoulder.

Bean nearly broke his neck trying to peer at her, but she tweaked his nose
 each time he squinted round at her, and he had to be content with just remembering
 how she looked. Her slim, delicately moulded body was wrapped in the sheerest of
 spider-web weaving; her wings, moving gently in the breeze, were shimmering gauze,
 dancing with every color of the rainbow. Her face- as much as he could remember-
 was an exquisite minature of ivory, her hair spun ebony, and her eyes the
 scintillating green of jade when it lies in hidden places, cold, mysterious, over-
 changing.

How James Bean, whose highest thoughts usually stopped at the top of a beer
 glass, thought of those things was a mystery. He surprised himself, but made no
 question. Somehow, he took the appearance of the elf for granted.

"Well," she snapped. "Say something, oaf."

James Bean cast glances about him. Unknowingly, he had walked into the cool,
 dim recesses of the park and there was nothing alive near him except the elf. She
 drummed her heels against his shoulder, and he flinched.

"Uh- I didn't hear you calling," he answered. She gave an impatient sniff.

"Well, I did. Now, what do you want?"

"Er- what do I want?"

"Don't be such a damn fool," she answered pettishly. "You sound like one of our
 parrots. Yes, what do you want! I have to give you whatever you want, so hurry up
 and make up your mind."

He began to collect his thoughts, and his natural shrewdness scooped up resist-
 lossly.

"Don't rush me," he answered. "Why do you have to give me what I want?"

She pinched his ear viciously but answered.

"Every time one of us in- you mortals call it fairyland- but we call it Home-

land, gets into trouble; we have to be punished. Titania was in a foul mood when my case came up and she relogated me here, to give the first mortal that passed by me, down-wind, a wish to fulfill whatever he wants. Now!"

"Wait," he said. "What if this wish backfires on me? Can I cancel it?"

She paused in the act of tearing a great hole in his coat. Her forehead wrinkled as she thought. Then she shook her head positively.

"No, I'm pretty sure you can't. Now, will you please make your wish so I can go home?"

Bean took a deep breath, pausing only a moment.

"I'm getting sick-literally- an' tired of not being able to eat!" he blurted.

"I want whatever I swallow to be digested, right away."

Peal after peal of tinkling laughter rang out as she danced a wild dance of merriment on his shoulder. He grew hot around the ears as it continued, then it stopped suddenly. She snapped tiny fingers.

"You'll find a box of pills in your waistcoat pocket," she chuckled. "They're Carey's Diminutive Digestive Pills, the best we have- the very best!" And she rolled in another spasm of mirth. "Take them all- all!" With a last wild shout of laughter, she was gone.

He knew it, but he hesitated a moment before reaching cautiously into his pocket. His fingers closed over a small box and he drew it into the light. It shone in the dimness filtering through the green, like a tiny jewel.

Feeling all thumbs, he opened it. Tiny, almost invisible black dots rolled about under his eyes. Gingerly, he picked one up and swallowed it. Then he nearly choked as all the pills shot in a swift, blurring stream of light and speed into his mouth. Gulping convulsively, he found he had swallowed them all. Moreover, the box disappeared as the last pill vanished down his throat. For an uncomfortable moment, he wondered if he had swallowed that, too.

Then he gulped and gagged as a burning pain shot through his center, accompanied by a sickening nausea. His head swam dizzily, and he dropped to the ground, groaning.

It was over, nearly before it started. The pains disappeared, and rising shakily to his feet, he wondered at the gnawing hunger that clutched him.

With swift steps, he made his way to an all-night restaurant. Seating himself at the counter, he ordered a six-course meal with all the trimmings. In an amazingly short time, it disappeared down his throat, as fast as he could shovel it in. Then, timorously, he sat back and waited for developments. None came; and sighing with relief, he rose to pay his bill.

Half-way to the door, he stopped. His stomach was burning, and moving in a manner science tells us it does when we get hungry. He started to go on out, when the dripping barbecue on the spit in the window caught his eye. He drooled.

Turning back to the counter, he ordered another full course meal, one with twelve courses instead of six. The thundro-struck waitress obeyed in wondorment. When she went into the kitchen, the buzz of comment that arose there did not come to Bean's ears, for he was busy gulping down doughnuts and coffee as fast as they could come.

Finished with that meal, he paid his bill on the run. Outside, he stopped, leaning against a brick wall and pressed his hand against his stomach to still the hunger pains biting there. In a mood of reflection, he stuck his pipe into his mouth without lighting it.

Apparently, what the elf said was true. He was able to digest what he ate, but not only did he digest it, it went so fast, he had to eat constantly!

Suddenly, he realized he was chewing on something. In amazement, he looked down at the pipe in his hand. Nothing but the bowl remained!

With a shudder, he waited for the inevitable vomiting to follow. Nothing happened. He didn't even feel the revulsion he should have- he didn't- in less than a fraction of a second, the bowl disappeared into his mouth. A bit hard, but very palatable.

The hunger became unbearable, and he hunted through all his pockets, looking

for something to eat. Watch, handkerchief, papers, wallet- minus money- key case, all disappeared into his mouth.

(Poor Boan appears to be in a tough spot. Where will it all end? Will he be able to continue feeding himself, or will he starve to death? What a tough place if he hasn't a job.....To be completed in the May issue.)

"AND IT CAME TO PASS"

by Leslie A. Crouch

Any resemblance to any person living, dead or improperly embalmed is not coincidental and is due to malice aforethought.

Authorial afterthought

NOW, it came to pass, that in the year of Uro Orld, in the Land of Pyrre-Dunos, in the Province of Ubawock, there dwelt a Prophet by Name of Leisel.

And he was honored among his brothers throughout the breadth of the Land of Pyrre-Dunos. Lo, to such an extent that they didst build on the Heights above Reowl Ubawock a palace which they didst name Ytorf-Neo.

Now, there was sorrow upon the land for in far away Enw Kryo dwelt a Despot who sought to draw down on the people of Pyrre-Dunos tribulations to tax the soul of man as never before.

And to the Prophet Leisel came the burthened people of Ubawock to plead aid and Visions to guide them from their days of sorrow which they saw nigh to upon them clearly.

And the Prophet didst fast. And after he had fasted thirty and six days and nights he opened his eyes, and, gazing on the heavens, cried forth in tone of brazen brass:

"Have strength, my people, for the God of us all shall send unto us a shining Light, to guide our way to a land unknown to us, and there we shall wax fat and have wealth many fold."

And they fell to their knees and salaaming didst cry, "Wondrous Prophet

Leisel. Mighty Prophet Loisel. Oh Powerful Prophet Loisel."

And lo, it came to pass after many moons had passed, there didst ride into the hills of Ubawock a horseman clad in cloth of wondrous green, as of the grass beneath, and on his head sat a great cowering colored as of the seas.

And before the People of Ubawock, in the Land of Pyrre-Dunos, he didst dismount and unfold before their eyes a great scroll, of many pieces, each white as a virgin's breast, and gazing upon it, he didst read in tones sonorous as the Bells of Hurrech which pealed each day of the Rest.

And before their mind's eye didst unfold a wondrous vision, and Lo, they didst glimpse the Unknown Land, and Lo, it was wondrous to the eye and they didst hunger and thirst after the miracles thereof.

And they didst rush upon the horseman so that he was slain in the trampling, and they didst seize upon the Light and the fragments thereof, but each piece was too small to satisfy the soul hunger of the mob, so no man nor woman nor child male nor child female was sufficed.

II

SO again they didst go to the Prophet Leisel and bowed before him and cried:

"Oh Great Loisel. Oh Wondrous Loisel, Oh Mighty Leisel. Tell us more of the Light we saw. Give us the Light that we may feed upon its sustenance."

And the Prophet Leisel didst raise his hand and a great hush settled upon the multitude.

And to them came the sound of roaring, and from the heavens came a great storm.

And Lo, the flakes thereof were the flakes of Light.

And the people didst fall upon the snow, and didst seize, and didst cast their gaze upon the treasure.

And each man and each woman and each man child and each woman child sufficed their soul hunger and didst have Light.

III

And Lo is came to pass that the Unknown Land was opened to them.

And a wondrous land it was: full to the breadth thereof of strange beasts that walked and swam upon the waters and under the waters and rose into the heavens.

And some of the beasts had great wheels and arms that thrust out beside them, and they went straight ahead and looked not where they went.

And other beasts had gleaming eyes that pierced the night and breathed fire like dragons.

And other beasts swallowed men and then vomited them up again whole and not hurt.

And the people did forget their woes, for they didst discover the tyrant of far-off Enw Kyro didst also journey into the Unknown Land, and when he found they were there, Lo, they were brothers, and he hurt them not, but kissed them first on the one cheek, and then on the other, and all were brothers and sisters in the sight of the Prophet Leisel and the God he served.

IV.

Thus, this is the tale they tell of far off Ubawek in Pyrra Dunes, and of the Prophet Leisel who dwells in the castle called Ytorf-Neo on the Heights above Reowl Ubawek, and of the Light he gave his people that they might have happiness in the days of their waking.

Thus, it came to pass.

30

THE MAIL BOX
(cont'd from
page 3)

himself on record as desiring English to be written as pronounced; thus: "atomic) bom" for

"bomb". The San Francisco Chronicle had a clever rebuttal, an entire editorial of words spelled as pronounced. They exaggerated, naturally, but still proved that English as it is today is much nicer and just as accommodating. Perhaps I like English as it is because I'm used to it. An argument similar in a way to this is the ever-present one over the name "Famous Fantastic Mysteries"? Many want a different name, a less glaring one. But I like this one, simply because I've always used it. (Am I anti-progressive?)

Bob Gibson in his book list should remember to include Sax Rohmer's books and many similar semi-fantastic ones.

(now go to page 8)

OF RAGS AND STUFF

or

Thoughts While Washing Windows

by

Cpl. Milton "Asteroid" Rothman.

Take a situation: You're a passenger on the first space ship to Mars. You've been properly equipped with all the necessities for a three-month stay in space and everything has been going along fine. Then one day the safety valve in the coffee pot blows, coffee flies all over the joint, and a mop-up job is needed.

You haven't brought along any clothes to speak of, so you can't tear an old undershirt up and use that. So you use a roll of toilet paper sopping up the spilled java and you use some more in the course of the trip for cleaning mirrors and for various other small jobs when you run out of Kleenex.

So about a week out from Earth on the return trip, you run out of toilet paper and that means you have to use up a volume of notes on "The Flora and Fauna of the Martian Canali."

This brings us to our moral: The space ship's supply sergeant must be sure to include a bale of rags on his supply list. Rags are a most essential item, for everything from cleaning shoes (why the hell would you want to clean shoes on a space ship?) to polishing the wash basin.

Which brings us to the subject of: the latrine in space. Airplanes solve the problems by the use of chemical tanks. In a space ship, where weight is essential, it may be necessary to blow the stuff out into space. In the army this goes by the technical term of: "Blow it out your barracks bag".

Chavchavadze, (Jour. I ut, Soc., IV, 648-18), has calculated the probabilities of another ship encountering such ejected material, and has found it to be negligible.

Gorlap (I bid, V, 792-48) has investigated the effects of immersion in space upon such materials, and writes a very interesting paper on: "Effects of extreme his vacuum and low temperatures upon the chemical structure of various organic substances".

It is essential that the spaceship (Dig the new spelling) latrine orderly (the guy who cleans the joint up, you civilians, you) be supplied with the sufficient equipment, e.g: brushes, Draining, suction pump, etc., for him to carry out his proper duties..

This is a matter of extreme importance to the morale of the crew, especially since somebody will miscalculate the amount of water needed for the trip, there won't be enough to wash the dishes properly, and everybody will promptly get dysentery or diarrhea, known in select circles as "The G.I.'s".

This may be avoided by eating directly from the cans. This brings us to the title of our next thesis: "Investigation of the Relative Merits of Various methods of Disposing of Tin Cans in Space."

-----30-----
continuing-

THE MAIL BOX

by You Readers.

.....
Pluto's lament of the science fiction fan presented very humorously an all too-true situation. If it weren't, why is it I always have to hide newly-bought mags and read 'em on the sly. Friends say "WAHT? You read T-H-A-T? Oh, for goodness sake!" They patronize me, smile condescendingly. Poor, poor fan.

HOW DID YOU PUT OVER SUCH A BEAUTIFUL JOB WITH A MIMMO? /speaking of January number/ It's the best I've seen of any of your issues yet, a swell piece of work! It does not have the whimsy of the poem, but it is perfect in itself! I don't think you'll find it easy to get such a fine piece of work again! Congratulations to Artist Gibson! May he continue to do as well. (The Yellow stock is all for the better, too.)

"Sweet Sue"-voddy voddy subtle. Satire well-deserved tho. Please continue to lay it on heavy on such silly fennish arguments. The sexiness is right in place, as it helps show how ridiculous the whole thing is.

Bon Indiek.

((What do you think of Gibson's work this month, Bon? That article "Food" is a compound of Gibson's and Lamb's experiences when both were hospital-tied. I think it's more Lamb's than otherwise, though. Is such a tall tale fantastic?-Editor.))

December 17, 1945.

Dear Les-

Have you been following the turmoil over "World of A" in the fanzines lately? I think it is a very encouraging sign to see a pro story getting discussion- shows we haven't fallen completely away from that field. Myself, I just finished the yarn a few days ago, and believe I have comprehended the main principles better than either Moskowitz or Chidsey did, although many, many things still puzzle me. Moskowitz, of course, made his fatal error when he didn't realize the complete identity between Gosseyn and Lavoisneur- he talks of two men jumping from one body to another. But Chidsey's rebuttal in Fanews, though essentially sound, betrays his misunderstanding of something else- that the super-brain and the system of personality transfer really had nothing to do with one another; that the means of jumping from one body to another was discovered by Lavoisneur, and that the mutant brain developed later accidentally. I have hopes that eventually we shall find out the answers to such questions as these: How did Lavoisneur discover the means of using the mutant brain, if Gosseyn was unable to do it without help? How did Lavoisneur manage to get into a body containing a super brain, if the personality transfer somehow depended on the identical nature of two bodies. Why did it matter that the intended third body of Gosseyn was destroyed, since there were lots of unharmed ones in the Semantics Institute? And why did Gosseyn have to get into that third body? Where did President Hardie fit into the picture? Was Patricia Hardie simply another projection of Lavoisneur? How come all the planets were inhabited by humans? Maybe you have figured out the solutions, and if you have, I would certainly appreciate your letting me know about them. It is much longer than two days since I finished the story, and that "comprehension" which Campbell says should arrive after 48 hours hasn't hit me yet. Final estimate: Not a really great classic- too poorly written from the literary standpoint, and too hopelessly complex a plot based on the now hackneyed theme of a man with enormous potentialities not knowing who is and caught up in intrigue

m (better turn to page 10)

* IN THE REALM OF BOOKS *

Title- "Sandalwood".
Author- Clark Ashton Smith..
Publishers- Auburn, California, October 1925.
250 Signed copies, 48 pp, 15 x 22.5 cm.
Reviewer- William H. Evans.

Other Data: Printed by the Auburn Journal at the author's expense. Bound in a heavy green paper stamped in gold "SANDALWOOD/BY/CLARK ASHTON SMITH". This slim volume contains forty-one short poems by Smith and nineteen of his translations from the French of Charles Pierre Baudelaire. There are numerous manuscript corrections, mostly minor, made by the author in the copyright deposit copy. Major corrections include "moons" for "moon" in line four of "Enigma" on page 11; and on line six of "Enchanted Mirrors" on page 18; "mortal" for "moral" and "its for "his" in line five of page 37.

Comment: This, Smith's fourth volume of poetry, is dedicated to his fellow Californian, George Sterling. In it, Smith did not include any of the long narrative poems such as appeared in The Star-Treader and Ebrony and Crystal. The most important single group are the nineteen translations from the French of Baudelaire. Here we have one master of the fantastic translating the works of a fellow craftsman. Other poets, including Edna St. Vincent Millay, have translated Baudelaire; I believe that Smith has best captured the delicate air of fantasy in the original French.

As before, Smith is the poet who sings of infinite space and time, who can visit

"...some strange and later planet, wrought
From molten shards and meteor-dust of this..."

and see in enchanted mirrors

"By daemons wrought from metals of the moon
To burnished forms of lune or plenilune
...the gleam
Of Atlantean suns that rose in dream
And Sank on golden worlds that never were."

However, a small group of poems reveal another, softer facet of his genius; in these there is little trace of the lost worlds and infinite spaces where his fancy is used to roam. Instead, they treat of the familiar things of this earth: flowers, the seasons, love. The Smith who wrote

"On boughs a-tremble with the rain,
The blown white flowers of the plum
Their fragile hold awhile retain".

and

"Departing autumn trails
Her scarf of mist adown the morning vales;
Enmeshed like fairy sequins in its fold
Gleam the last leaves of gold."

is not the Smith of The Star-Treader. This different Smith is interesting, but lesser in stature. And yet, there still gleams the magic of his choice of the word is his special talent.

This volume does not contain overly much of Smith's works; the few there are and the translations of Baudelaire, though, make it one of the bright spots on fantasy's shelf of poetry.

() -----	() Princess Paul Troubetsky & C.R.W. Nevinson;
() BOB GIBSON'S BOOK LIST	() "Exodus, A. D."
() -----	() Paul Trent: "Master of the Skies".
Jules Verne: "20,000 Leagues Under The Sea", "From The Earth to the Moon".	Louis Tracy: "The Man With the Sixth Sense"
Hendric Willem Van Loon: "Invasion".	An American Emperor".
Sutton Vane- "Outward Bound".	Alexei Tolstoi: "The Death Box".
Alison Utley: "A Traveller in Time" (J),	Aelfrida Tillyard: "The Approaching Storm".
J. R. R. Tolkien: "The Hobbit" (JF).	K. Graham Thomson: "People of the South Pole" (J).
T.F. Tweed: "Blind Mouths", "Rinehart".	(J): Juvenile; (JF): Juvenile Fantasy.

of a cosmic nature. But still a fine story, and one that contains enormous wealth of new ideas, plus a few memorable scenes.

Harry Warner Jr.

((As LIGHT is sent regularly to* Alfred Van Vogt, this letter will be read by him, no doubt. Perhaps he will see fit to say something for publication.- Editor.))

-o-

Dear Les:

Thanks for the article in last "Light". Sorta behind the times now. Slan Jr. is two years old. Carl and I have been married for 30 years. We're over the jewelry gifting stake and give each other things to wear and use in the house which we intend to set up as soon as the shortage is over.

LIGHT is getting "curiouser and curiouser" as Alice out it, and the change is even better than ever. Keep it up and I'll be sending in some more material the first of the year.

Nanek.

((Thank ye, mah dear. That's a promise and I accept.- Editor))

-o-

December 22, 1945.

Dear Les:

The latest LIGHT contains an error of omission which my vanity demands that I correct. Refer to page 3, first paragraph.

Yes, E. Mayne Hull is A. E. van Vogt. Yes, you were scooped by Ackerman. But- haha- both Ackerman and Croutch were scooped by the undersigned. An old fapa-circulated Blitherings, now hoary with age, notes in no uncertain terms E. Mayne' Hull's correct identity, with confirmation from John W. Campbell Jr. himself. I bring this up only because I am rather proud of the way in which I discovered the thing. I had noticed in reading the first few Arthur Blord stories that Hull used frequently several peculiar devices of style that I had come to associate with van Vogt. Curious, I wrote to Campbell, receiving the following reply, "Your judgment of literary styles is good. E. Mayne Hull is A. E. Van Vogt."

Ens. Chandler Davis,
USN.

((Eag now- LIGHT credits you herewith with a scoop, but E. Mayne Hull is NOT A. E. van Vogt. To carry this to an extreme, E. M is Edna Mayne Hull, wife of Alfred van Vogt. Hull's stories are actually collaborations by both, thus the similarity in style.- Editor.))

-o-

Hi Les

Jack Sloan's letter annoyed me. Does he think that cooling by evaporation is so far fetched? Has Jack never felt the rather startling coldness of a drop of ether or any other highly volatile liquid when applied to the skin? Well, if not, let's look at the problem in the story and do some calculations.

To begin, let us examine the mechanism of vaporization. The molecules of a liquid are considered to be in a state of constant unordered motion, some moving with great velocity, while others move less rapidly. For any temperature, however, there is a certain mean velocity of the molecules, which for temperatures below the boiling point is not sufficient to project them beyond the free surface of the liquid. But there are always some molecules that possess a velocity sufficiently greater than this mean so that when they approach the free surface of the liquid, they overcome the mutual attraction exerted between them and other molecules in the liquid, and, continuing their motion, pass out into the surrounding space and exert a pressure upon the walls of the container as a result of the bombardment that their motion produced. Since these molecules move in all directions, a certain number will strike the liquid surface from which they emanated and again become a part of it. When the number of molecules reentering the surface just equals the number leaving, a condition of dynamic equilibrium exists, and the pressure exerted upon the walls of the container by these molecules is called the vapor pressure of the substance at the existing temperature. This equilibrium pressure is established very rapidly, and varies with the temperature in the manner defined by the Clausius-Clapeyron equation. If the space surrounding the liquid is filled with molecules of some other substance such as air at a pressure not materially exceeding 1 atmosphere, the voids between particles are sufficiently large and numerous to enable the above described phenomena to take

place undisturbed.

However, if the vapor is withdrawn from the container by means of a vacuum pump, or better still by opening the container to vacuum, the equilibrium is upset, molecules continue to leave the liquid, but none return, and hence the temperature of the liquid falls in accordance with the Clausius-Clapeyron equation due to the loss of the energy possessed by the escaping molecules.

Now let us look at the rocket in the story. The rocket is accelerating slightly, so the water has settled in the bottom of the tank. There is air above the water, since air had to be admitted to permit the water to be pumped from the fuel tanks to the rocket motor. The air however does not interfere with the establishment of the vapor pressure equilibrium. Now a hole is torn in the outer hull above the waterline, and the vapor is withdrawn continuously (the air of course leaves with the vapor at the beginning) hence the water cools and the ship cools since the fuel tanks are not insulated from the interior of the ship.

Well now let's see how much water would have to be evaporated to cool the ship. The ship is small with no cargo, and very little water. Let's say it weighs 100 tons and is constructed substantially of magnesium and aluminium alloys, plus some steel. The specific heat of the average magnesium alloys is .249, of the aluminium alloys, .226, and of steel, .118 in the temperature range of 68-212°F. A figure of .22 for the specific heat of the rocket should be about right. O.K., now let us say that the temperature of the rocket before cooling is 180°F which is hot enough to be damn uncomfortable, and that it is cooled by evaporation to 60°F. The total amount of heat to be removed is $100 \times 2000 \times .22 \times (180-60)$ which is equal to 5280000 B.t.u.'s. Now looking at steam tables or a Mollier diagram, you find that the enthalpy of vaporization at 180°F is 990.2 B.t.u.'s per pound at 60°F, 1059.1. The average enthalpy of vaporization over the temperature range can thus be assumed to be 1000, with negligible error. Now if "W" is the weight in pounds of water that must be evaporated to cause the ship to be cooled,

$$1000 \times W = 5280000$$

$$W = 5280 \text{ lbs.} = 2.64 \text{ tons.}$$

This figure is of course only a first approximation but I'll wager if Jack works out the problem more accurately, integrating the enthalpy over the temperature range, and taking account of the weight of the water in the ship, the water required will not be more than 3 tons.

I fail to see anything far fetched about 3 tons; if 3000 tons were required to cool a 100 ton ship (weight when empty) I'd say it was far fetched, but 3 tons....

Oh yes, in case some of you have been puzzled over some of the terms used in the story, here is an explanation. A "cone" is a type of rocket shaped much like an ice-cream cone fitted over a doughnut. The cabins are in the doughnut, the rocket motor at the apex of the cone, and firing down through the doughnut. In this type of rocket, the centre of gravity is below the point of thrust when taking off from a planet, and thus the rocket does not tend to wobble. Water plus U235 is used for fuel, U235 to supply the energy, water to supply the mass required for propulsion. The "scavengers" are the salvage crews, who in the more remote zones may charge up to 85% of the assessed value of a ship for bringing it back to port. Incidentally, this story was written two years ago, funny thing is, the method of powering the rocket would actually work if "heavy" water were substituted for the ordinary water I used in the story.

Fred Hurter Jr.

-o-

December 16, 1945.

Dear Les:

Frankly, I like your spirit of amateur publication. No sub- no ads- no uncertain schedule- no long and tiresome material to mush through in quest of whatever elusive interesting bit might quietly slip in. Yours is becoming steadily a more interesting fan mag catering- I can see- to a more than ordinary intelligent

clientele. And to think- I repeat myself- there's no charge! When I speculate on some of the effonteries I've kicked in monies to, it gives me a sensation of guilt- somewhat akin to shame- no less, Les.

Franklin Les Baldwin.
((Thank you, FLB. Be sure and let me know how this issue stacks up. - Editor)).

DEROS!

MEN
AT WORK

Blame Les for this one

This Atomic Bomb has me
worried!

Look Out
for Hooks!

