

Signals to Mars All Idle Chatter. Says Professor

Planet May Have Life, But
Not Intelligent Beings,
Father Rigge Tells
Radio Fans.

Signaling to Mars is a fit subject for a yellow magazine, but not for men of intelligence, declared Father William F. Rigge in an address over WOA-W Friday night. The astronomer discussed the facts concerning Mars gleaned by scientists.

"The fact that the orbit of Mars lies entirely outside the earth's orbit brings with it the great advantage that Mars always turns its bright or day side toward us, especially when it is opposite the sun. It is then nearer to us than any other heavenly body except the moon.

"We know that Mars is a solid ball like the earth, only smaller with a diameter about half that of the earth. It has days and nights and even seasons like ours, only its day is 37 minutes longer and its year nearly twice as long as ours.

"Its surface is said to be more than half desert. It has white polar caps which melt away in the spring and which are now generally admitted to be snow. It has few, if any, mountains and a rarer atmosphere than earthly persons can live in," he declared.

"The astronomical question in which the public generally seems to be most interested, is without doubt, the habitability of the planet, especially that of our nearest neighbor, Mars. This question is sure to come up in the daily press almost every other year at least—whenever this planet comes near the earth. And not without reason, because Mars is more like the earth than any other planet; we know so much more about it; and the chances that are fighting for and against its being actually inhabited are among the ablest men that we have.

Natural Law Universal.
"In order to be able to form our own judgment in the case, and indeed even to have clear ideas on the point at issue, we must be thoroughly acquainted with certain facts, and also familiar with the latest discoveries. But before refreshing our memories on these facts, we must agree on the principle that the laws of nature as we know them on earth, are the same all over the universe, although the conditions and the circumstances in which they may operate, may differ widely from those in which we are accustomed to study them. For this reason it will not be surprising that God is Almighty—that He can create an infinite number of worlds all differing from one another, and people them with all kinds of possible life.

"Nobody of course will question this principle; but it cannot be used as an argument—first because science is concerned to know whether or not a planet is really inhabited, and secondly, if the nature of its life differs essentially from that on earth, we cannot apply the facts of our earth to any other heavenly body. So that if we see with our spectroscopic certain lines in the atmosphere of Mars that correspond perfectly with those of water vapor on earth, we could be led to conclude that there is water on Mars. No, we must suppose the laws of nature and of life, at least in their essential features, to be the same all over creation.

Mars Like Earth.
This being premised, let us review the main facts about Mars. Mars is a planet like the earth. What does that mean? Astronomers have proved that the sun, on account of its enormous size, occupies the center of what they call the solar system. This consists of eight large and many hundred smaller bodies that circulate about it in fixed orbits, together with many comets. We know that Mercury is the planet nearest the sun, moving about it at an average distance of 36,000,000 of miles and completing its circuit in about 88 days.

"The second planet is Venus, at a distance of 67,000,000 of miles and a period of 225 of our days. The earth is the third in the order of distance, about 93,000,000 of miles away from the sun, and completing its course in 365 1/4 days. Then comes our planet Mars, 141 millions of miles from the sun, with a period of 687 days, or a year and 10 1/2 months of our reckoning. Outside of the orbit of Mars come the hundreds of small planets called asteroids, and outside of them, the large planets, Jupiter, Saturn, Uranus and Neptune, the latter's distance from the sun being almost 300,000,000 of miles and its period about 104 of our years.

"While the orbits of the planets are practically circles, they do not, however, have the sun in the center. For the earth, the sun is 1,500,000 miles out of center, and for Mars as much as 13,000,000. The consequence is that while these orbits approach one another within 35,500,000 miles in one place, they are 61,000,000 miles apart in the opposite one. While the earth and Mars may therefore be nearest together for the time being, this least distance is thus seen to vary considerably. It is only once in every 15 or 17 years that they come within 35,500,000 miles. The last time this happened was in 1909 and the next time will be in August of this year. At other times the inequality of their orbits and their speeds may put earth and Mars as far as 250,000,000 miles apart.

Day Side Seen.
"The fact that the orbit of Mars lies entirely outside the earth's orbit brings with it the great advantage that Mars always turns its bright or day side toward us, especially when it is opposite the sun. It is then nearer to us than any other heavenly body except the moon, and is more over in our night sky, this is why we can study it so well and know so much about it. We know, for instance, that Mars is a solid ball like the earth, only smaller, with a diameter about half that of the earth. It has days and nights and even seasons like ours, only that its day is 37 minutes longer and its year nearly twice as long as ours.

Iowa Woman Admits Drowning Her Stepson



Because she hated her stepson, Nicholas Maharis, 5, Mrs. Marie Maharis thrust the boy in the swift current of the Cedar river, according to her confession to police at Waterloo, Ia. Her story was at first doubted.

mitted to be snow. It has, however, few, if any, mountains, and an atmosphere rarer than any we could live in. The most interesting as well as the most disputed, surface feature, are its canals and canals. These last are fine, dark, straight, or curved lines all over the globe, and the canals are their points of meeting. Nobody at all conversant with the matter, now holds these canals to be water courses.

"Another much disputed point concerns the temperature of Mars. In fact, we call this the crucial point because the possibility of life depends upon its solution. On earth, the activities of life are confined within very narrow limits of temperature. While some forms of life can be kept unharmed for indefinite periods at the absolute zero, this life is dormant and practically nonexistent, even with the temperature somewhat above the freezing point plants can not grow.

"With the thermometer at 212 degrees, the boiling point of water, I doubt if any kind of life whatever can survive, except perhaps some forms of germs. And long before we get to that, even at a few degrees above 100, all activity practically ceases, so that all the major operations of life seem to be confined within the very narrow limits of 60 degrees, between 40 and 100.

Earth Temperature Fixed.
"As direct measurements of the surface temperature of Mars are impossible, astronomers generally have approached the solution from the theoretical side. The earth, as a whole, is getting neither hotter nor colder—that is, it loses the sun's heat as fast as it receives it, because the habits of plants and animals have not changed within historic times. As Mars is half again as far from the sun as the earth is, it receives about half as much heat per square mile as we do. This would make its average temperature 20 degrees below zero. With this as an average, how can things grow? And the argument is clinched by the thinness of the Martian atmosphere, which is less than that above the eternal snows of our mountain tops.

"Plickering, however, warns us against rash theoretical conclusions. He maintains that actual observation is much more reliable, not of the temperature directly, but of its effects. He says that snow is sometimes seen at sunrise and even in the afternoon on the equator. This might put the temperature of its torrid zone between 40 and 60 degrees in the daytime but drop it below the freezing point at night. It would also raise the average temperature of the whole planet to about 20 above zero instead of 39 below.

At a certain season for three months at a time, large tracts of Mars turn green, and green is most likely a color of growing vegetation.

"Now what are we non-professionals to conclude? Certainly this, that beings like ourselves cannot live on Mars, principally because the air is too rare, there is no liquid water, and with a freezing temperature every night, even in the torrid zone, plants that we need for life, can not grow.

No Intellectual Life.
"There may of course be lower forms of both animal and plant life, and this last may be plentiful enough to color a whole continent, but there is surely not that intellectual life on Mars that we have on earth. Sending signals to Mars may be a pleasant diversion, but it is not a science.

ADVERTISING.
AFTER BABY WAS BORN
Back Weak and Painful. Mrs. Miller Benefited by Taking Lydia E. Pinkham's Vegetable Compound

Rotan, Tex.—"I am writing to let you know how I have been benefited by taking your medicine. After my second baby was born my back was weak and hurt me continually. I thought I'd try Lydia E. Pinkham's Vegetable Compound as I had read so much about where it had helped so many women. I had been bothered with my back for over a year, and it would hurt me until I could not do my work, which is keeping house for three and cooking and washing dishes. I tell all my friends if they have any kind of female troubles to give Lydia E. Pinkham's Vegetable Compound a trial. You may use this testimonial if it will help any one."—Mrs. C. R. MILLER, R.F.D. No. 1, Box 76, Rotan, Texas.

In a recent country-wide canvass of purchasers of Lydia E. Pinkham's Vegetable Compound over 121,000 replies were received, and 98 out of every 100 reported they were benefited by its use. For sale by druggists everywhere.

version, but seriously to expect to receive signals in return betrays little acquaintance with real facts. And why? First, because we know how many years it took to gradually send our radio signals to greater distances. In the beginning only from one room to another, and now almost halfway around the earth, 12,000 miles. And shall we at one effort make the jump from 12,000 to 35,000,000 miles?

"Secondly, the only signals that can get through to Mars are light signals. Some people have proposed to build a big triangle of search lights, hundreds of miles to a side, in order to show Mars that we on earth are intelligent. Will they contribute liberally to this fun? It is

easy and as brilliant an idea as for the mice to hang a bell on the cat. "Thirdly, one of our popular science monthlies shows on its front cover in March a battery of search lights directed to Mars and sending word signals through them, on the method of our broadcasting stations, which a receiving telescope on Mars is to catch on a photo-electric cell and reconvert into sound. Great idea, sure! Did the professor ever figure on the number of the searchlights, the power required to operate them, and the cost? Of course not, such men are never practical.

"Fourthly, such day dreamers do not know the elements of astronomy. When Mars is nearest to us it turns

its bright or day side towards us so that we cannot then see light signals on it. At the same time the dark or night side of the earth faces Mars, so that our light signals might be seen if the earth was not then in line with the sun and lost in its glare.

"When the earth and Mars separate, a small portion of its dark side begins to face us, but then the distance is increasing rapidly. And the fact that both earth and Mars turn on their axes nearly but not exactly equally fast, makes the problem more intricate than these visionaries would like to hear.

"Fifthly and lastly, there are too many items necessary to success to

give this any hope whatever. A few of these are that Mars must be habitable, that it is inhabited, that its people are intelligent, have our modern inventions, are expecting us to signal just when we take a notion to do so, can and will answer back promptly in a way that we can perceive, and dozens other essential prerequisites. Signaling to Mars is a fit subject for a yellow magazine, but not for men of intelligence."

**1,000 ODD FELLOWS
AT COZAD PICNIC**
Cozad, Neb., Aug. 22.—More than 1,000 people attended the fourth an-

nual picnic of the Dawson county Odd Fellows and Rebekahs at Vasey's grove, six miles east of Cozad.

Rev. E. R. King of Ashland, former pastor of the Disciples church of Cozad, delivered the address of the day. E. S. Davis, North Platte, grand secretary of the grand lodge of Nebraska; Mrs. Myrtle Musser, state president of Rebekahs, and A. E. Hanna, grand junior warden, were present and delivered addresses.

Radium plaided dresses of large green and brown plaid, very large—tight belted effect—long tailored sleeve finished with narrow brown cuffs with matching collar of boyish type, are worn on Fifth avenue.

PUBLIC OWNERSHIP LEAGUE FORMED

Aurora, Neb., Aug. 22.—The Public Ownership League of Aurora, recently organized to take care of the situation when the present franchise of the Nebraska Gas and Electric company has expired, has now perfected its organization and is beginning its campaign for membership.

The officers are: Elmer Peterson, president; Harry Toof, vice president; C. C. Fraizer, secretary-treasurer; and these officers, together with F. A. Thomas, T. M. Scott, J. J. Refshauge, J. F. Cole and F. E. Edgerton constitute the executive committee.

Welcome
Nebraska Editors
To Omaha and Our Store

BURGESS-NASH COMPANY

"EVERYBODY'S STORE"

Saturday Store Hours—9 A. M. to 6 P. M.

Cool, Summery Nightgowns Four Special Groups



French Gowns \$1.95

Hand-made French gowns of sheer nainsook, linen finish, made with embroidered, scalloped edges and motifs. These gowns will launder beautifully, and every stitch is hand sewn. Sizes 16 and 17.

Porto Rican Gowns \$2.25

Hand-made Porto Rican gowns in the pastel shades have hemstitched edges and hand-embroidered flower designs. Sizes 16 and 17.

Imported Voile Gowns \$2.95

Dainty voile gowns in the lingerie shades and white are made with Jenny or square neck lines. Lace trimmed and embroidered.

Fine Nainsook Gowns \$1.25

Second Floor

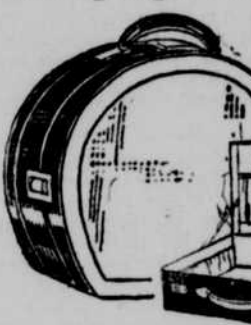
Special for Saturday Milanese Silk Gloves \$1.69

For fall wear these 16-button, heavy quality Milanese silk gloves in colors to match the season's costumes are very suitable. Five rows of embroidery stitching add to the attractiveness. All sizes. \$2.50 value.

Main Floor

Sale of Luggage

Luggage to the fore—it's the usual thing for a contemplated trip—extended or short. And with the Labor Day week-end in mind, this timely special offering of traveling bags and hat boxes is particularly interesting.



Women's traveling bags, black cowhide \$5.00
\$45.00 cowhide cobra grain bags \$31.50
Women's hat boxes \$3.98
\$30.00 men's black and brown traveling bags \$17.50
Main Floor

Women's Union Suits

"Colgate" and "Valora" sleeveless union suits of light weight lisle with French band tops, loose and tight knees. White only.

Sizes 34 to 38.....49¢
Sizes 40 to 50.....59¢
Second Floor

The Silk Scarf

Flaunts Its Colors in the Winds of Fashion
Exquisitely colored scarfs are these of soft crepe de chine, lovely enough for wear with one's daintiest frocks. Some are tie-and-dyed, other are plain in color with contrasting borders. Priced very reasonably at.....\$1.59
Main Floor

Kiddies' Sox

19c

2 pairs for 35¢
Our entire stock of kiddies' half sox with values to 35c and 40c are included in this lot. Of fine lisle or glos silk in beige, camels hair, deer, rose, white, champagne, blue, pink, buttercup, lavender, with plain cuff tops. Also white with cuff tops of contrasting colors. Sizes 5 to 7 1/2.
Main Floor

Toilet Goods

60c Sempray Jovenay.....39¢
25c Qui Salt Talcum Powder for.....15¢
\$1.00 Glacier Clay Pack, 49¢
50c Smooth Hair.....35¢
75c Fitch's Shampoo.....49¢
25c Nail Polish, cake or paste, for.....15¢
\$1.00 Holman's Toilet Water for.....69¢
Coty's L'Origan Extract, oz.....23.39
10c Life Buoy Soap, 6 for 39¢
35c cake Vivado Imported Bath Soap.....15¢
\$1.00 Bath Brushes.....49¢
50c English Wire-Drawn Pure Bristle Tooth Brushes, 29¢
\$2.00 Hughes' Ideal Hair Brushes.....\$1.29
\$2.00 Ebony and Turtle Ebony Back Hair Brushes with 11 rows of pure 1 price bristles.....2 price
35c Tooth Brushes, all styles, for.....19¢
Main Floor

Fall Fashions in Frocks

In accordance with Paris predictions that—Faillies, Bengelines and Ribbed Silks are the very essence of smartness—we are showing a collection of clever models fashioned of these silks. Buttons are the favorite tailored trimming. Tunics of all kinds are in evidence and many models are rich in fur trimmings of beaver, muskrat and mink. Other silks are

Patio Crepe Satin, Brocade, Chiffon Velvet, Satin Face Crepe, Crepe Elizabeth, and Satin and Georgette Combinations.

Trig street frocks of the sort you will see worn all season, wherever smart women gather, are the wool frocks, superbly tailored, beautifully finished. The new stripe fabrics—Reverie Barr, Loveline and Rayline—are decidedly new and tend to give a slimmish of line. Other materials in favor are

Twill Bloom, Charmeen, Patou Crepe, Lustrella.
Third Floor

Our Entire Stock of Wool Bathing Suits

Emphatically Reduced
\$3.95 to \$4.95 values.....\$3.69
\$5.95 to \$6.95 values.....\$4.89
\$6.95 to \$8.95 values.....\$6.89
\$8.85 to \$17.95 values.....\$8.89
Third Floor

Sale of Women's Silk Hose

Odd lots and discontinued lines. Every pair first quality. Our best makes are included—"Granite," "Lehigh," "Propper," "Mojud," "Hollyoke," "Themis," "Merit" and "Kaysner."

\$2.35

All silk chiffon or regular weights. Also white hose with fancy embroidered clox of contrasting colors. In light fawn, medium gray, silver, pole gray, gunmetal, black, African brown, nude, new tan, log cabin, gold, noisette, cinnamon, beige, banana, Oriental pearl. \$3.50 to \$4.50 values.

\$1.68

Sheer chiffon or regular weight, some all silk, others with lisle tops. Full fashioned. In white, black, log cabin, African brown, silver, navy, dawn, poudre blue, medium blue, Yu Chi, French beaver, tan bark. \$1.95 to \$3.00 values.

\$2.95

All silk from top to toe, some plain, others with fancy lace or embroidered clox, in plain or contrasting colors. In white, black, cordovan and silver. \$4.50 to \$7.50 values.

Main Floor

\$2.45 Silks, Yard \$1.39

Included are Arab prints, striped tub silk, printed pongee, sport satin, knitted silks. Not all colors.

\$1.95 Silks, Yard 95c

Included are tubular vestings, wash satin, knitted crepe, colored messaline, colored taffeta. Not all colors included.

Second Floor

Boys' Wash Suits Greatly Reduced

\$1.39

Oliver Twist, middy and Balkan style suits in all the wanted colors, comprise this group. All are well made and will withstand hard wear. Sizes 2 to 8.

In this group also are broken lots of our better grade wash suits. These are suitable for dress as well as for school wear. Sizes 2 to 8.



Third Floor

Children's "Columbine" Union Suits

Sleeveless suits of fine light weight lisle, with French band tops, cuff or bloomer knees and drop seats. Sizes 2 to 12. 85c values.....59c

Second Floor

All Our Bathing Caps

1/2 Price

Our entire stock of bathing caps, every conceivable style and color, is included in this 1/2 price sale. These have sold regularly from 25c to \$1.50.

Main Floor

Women's Handkerchiefs

50c

Dainty white and colored linen handkerchiefs with hand-blocked print borders. Some are finished with 1/2 and 1-inch hems, others with footing and hand-embroidered corners.

Main Floor

Sale of House- furnishings

88c

Dozen Quart Fruit Jars
6 Aluminum Cups
Serving Trays
Garbage Pail
Earthenware Casserole
Mirrors
O'Cedar Floor Wax
Refrigerator Pan
Colored Glassware
24 Jelly Glasses
Light Cut Glassware
Lunch Kits
12 Rolls Toilet Paper
Glass Jug
4-piece Canister Set
Flour Can
3-piece Cutlery Set
Wash Tub
4 Mixing Bowls
Enamelware
Aluminum Ware
Fourth Floor

Hats for Every Occasion Wear

Depicting The New Fall Styles

Specially Priced

Smart Hats for Miss and Matron

On Sale Saturday

\$5.00

Style, quality and value are combined in this collection of smart millinery. Charming, dignified models, developed of velvet and combinations of velvet with silk and taffeta.

Smart bows, large fan effects of silk and novelty pins give the note of distinction that is seldom found in merchandise so economically priced.

Third Floor