

## SECRETS OF SPACE

What Might Be Revealed if Nature Lifted the Veil.

### WONDERS OF THE INVISIBLE.

Evidence That What We Call the Universe is Only a Part of a Far Grander and Perhaps Infinite System of Suns and Worlds and Planets.

Men of science have found reasons for believing that there may be far off in infinite space, other material systems besides the one visible to us. We seem to be able with modern telescopes to reach the boundaries or farthest limits of the stellar system to which our sun belongs.

It is found that with increase of distance the relative number of stars decreases until, in most directions at least, a point is reached beyond which virtually no more stars can be seen. Then, too, it has been found that the stellar system has a fairly definite shape—a fact which in itself implies boundaries. The shape is that of a vast spiral, with curving arms surrounding a central agglomeration. If you will imagine floating in the middle of the room where you sit a roughly globular swarm of bright particles, distributed with a fair degree of uniformity as to distance from one another, and then outside of the swarm surrounding it, but separated from it by a space which is nearly but not quite empty, an irregular spiral ring of similar shining particles, you will have before you a picture of one of the latest astronomical conceptions of the form of the visible universe.

The central swarm will represent the assemblage of stars of which our sun is a modest member, while the enveloping spiral will represent the immense system of the Milky way, whose stars are vastly more numerous than those composing the globular swarm. The stars of the Milky way are the most distant members of the entire system, which appears to be shut in all around by black space. Viewed from afar off in the ebon depths of that space, this universe of ours would resemble a phosphorescent jellyfish, with faintly sparkling tentacles, afloat in the sea of immensity.

This being so, the question naturally arises, May there not be, or must there not be, an indefinite number of other such systems scattered through the limitless expanse of space? That question would forever remain a matter of pure conjecture if we did not have certain very suggestive facts which seem to indicate that it ought to be answered in the affirmative.

The facts of which I speak are objects of visual observation. But these do not necessarily make them parts of the "visible universe," because they appear to be unconnected with it and to lie beyond its boundaries.

These objects are known as spiral nebulae. The photographs that have been made of them in the past few years are simply amazing. The forms of many are surprisingly like that which has been described above as characterizing the stellar system. They have central agglomerations with enveloping spirals. They have knots of light which recall the globular clusters of stars found in the visible universe, but they are so distant that no separate stars can be detected in them.

They look like masses of more or less condensed glowing gas, but the spectroscopic shows that the light coming from them is not that which is characteristic of gaseous nebulae, but that which belongs to true stars. The inference is that these wonderful objects may actually be other universes lying out in the ocean of space beyond our shores.

This inference is strengthened by what we know of the distance of some of these objects. The utmost diameter of the great spiral of the Milky way probably does not exceed from 4,000 to 6,000 "parsecs," or from 800 to 1,200 million times the earth's distance from the sun. A parsec, which corresponds to a parallax of one second of arc, equals about 19,000,000,000 (nineteen trillion) miles. But some of the spiral nebulae appear to be at least 10,000 parsecs distant.

If that is so there exists between them and the outer frontiers of the visible universe a gap far broader than the entire diameter of that universe. It can hardly be supposed, then, that they are outlying parts of or attendants upon our universe, but it is much more reasonable to conclude that they are other universes constructed on a similar plan, but so far away that as viewed with our utmost visual powers, our mightiest telescopes, they are but gleaming specks! Perhaps the nearest of these strange objects is the Andromeda nebula, which, in a small telescope, looks like a faint spindle shaped wisp.—Garrett P. Serviss in New York Journal

Vengeance on the Caddie.  
"What! Buying more golf clubs? I thought you had a pretty complete outfit before."

"I have, but that caddie of mine had the nerve to snigger when I topped my drive yesterday, and I'm going to make him carry double weight!"—Pall Mall Gazette

Happiness.  
Happiness is that single and glorious thing which is the very light and sum of the whole animated universe, and where she is not it is better that nothing should be.—Colton

The most completely lost of all days is the one on which we have not laughed.—Lambert

## MOTION PICTURES IN BRAZIL.

They Have Some Curious Rules in the Theaters That Show Them.

South America is fast becoming a paradise for the motion picture theater, but some curious rules prevail. For example, the best motion picture theaters in Rio de Janeiro do not allow patrons to drop in or out at will. A film is advertised to begin at a certain hour of the afternoon or evening. At the appointed time doors are closed, or in most cases a heavy and highly decorated curtain is dropped, and the show in the auditorium begins its functions.

A rather novel arrangement, also noted in other Brazilian cities, is the waiting lobby immediately in front of the entrance proper. After purchasing a ticket the patron enters the lobby or corridor, makes a comfortable seat and waits until the termination of the first scene of the play, the time of which may be a few minutes or half an hour. While waiting one may listen to the band of music, which may be heard equally well by those within the lobby or in the audience.

At times the crowds become congested and all the lobby seats are occupied. In such cases the ticket seller withholds further admissions, and the crowd remains upon the street, but the brilliant electric lights (if night) and the music of the band continue to swell the number of waiting patrons.

The night is the most popular hour for the crowds, as at that time the whole family turns out, and every one who can afford an automobile presses it into service. At one of the best motion picture theaters in Buenos Aires a writer counted more than 300 machines drawn up in lines awaiting the closing of only an average attraction. The hour was near midnight, and about as much ceremony was observed as if the finest opera company had been the star performers.—Argonaut

## A ROMANCE OF BAGDAD.

Peculiar Story of Nasim Pasha and an Armenian Beauty.

A remarkable tale of Nasim Pasha, the commander in chief of the Turkish armies against Bulgaria in the Balkan war, is told by Sir William Willcocks, K. C. M. G., in an article in Blackwood's Magazine:

"After Nasim Pasha became wali of Bagdad there lived in one of the best houses in the place an Armenian girl of eighteen, who was very pretty, very wealthy and an orphan. All the young Armenians in the Turkish empire were eager suitors for her hand, but she would have none of them. The wali invited her to his palace and told her that in her unprotected condition she might get into trouble, but that if she were to marry a countryman of hers in his household she would have both a sterling husband and his own protection. She accepted, but on reaching her home sent the wali word that she preferred remaining single.

"You shall remain single for life!" said the wali, and put a cordon of soldiers round her house, which prevented her from leaving it.

"She escaped to the French convent, one day, dressed as a French nun, and the cordon of soldiers moved to her new residence. After some delay she escaped as a French monk, took refuge on Lynch's boat and sailed for Basra under the British flag. Boats full of soldiers surrounded the steamer at Basra, but the girl ran across the deck, jumped into the Russian consul's boat and took refuge under the Russian flag. The consul saw her safely on to the British India steamer, and she descended at Bushire, in Persia.

"Not many months afterward Nasim Pasha himself was deposed and ordered to return to Constantinople. He returned there finally and was, as we all know, murdered by the Young Turks.

## Milo Was a Glutton.

Milo, the famous athlete of ancient Greece, born 520 B. C., was victor at both the Olympic and Pythian games for six times in succession. On one occasion he ran four miles with an ox on his shoulder, killed the animal with a blow of his fist and then ate the entire carcass in one day. An ordinary meal for this gluttonous Titan was twenty pounds of bread, twice that much meat and fifteen pints of wine.

## Original Era of Good Feeling.

The phrase applied to the administration of James Monroe, "the era of good feeling," first appeared in a Boston newspaper, the Columbian Sentinel of July 10, 1817. From that time until the present hour the two administrations of Monroe—a period of eight years, 1817 to 1825—are referred to in the terms of the newspaper paragraph which so aptly expressed the public sentiment of the day.

## Lay of the Cow.

"What are oxen?" asked the teacher. The little foreigners looked blank. "Does any one know what a cow is?" she asked hopefully.

A dingy hand waved wildly at the back of the room. "I know, I know, teacher. A cow she lays milk!"—Harper's Magazine

## Where Women Tell Their Ages.

Japanese women wear gold pins in their hair until they reach the age of twenty-five. At thirty the pins are white, and at forty they wear plain shell combs.

## Power of Music.

Mrs. Flatbush—Did you say her husband has a passion for music? Mrs. Bensonhurst—Oh, my, yes! Every time she sings he flies into one.—Yonkers Statesman

The average farm in the United States measures 138 acres

## CHAINED TO A ROCK

How the Turks Once Imprisoned a Greek Battleship.

### DARING OF A YOUNG OFFICER.

His Pluck and Strategy Resulted in Making the Powerful Enemy Vessel Lie Helpless Within the Landlocked Waters of the Gulf of Arta.

It was during the war between Greece and Turkey in 1827 that the inhabitants of Gela Krini—a large village, since destroyed by the Turks, on the shores of the gulf of Arta—awoke one morning to find that a Hellenic battleship had entered the gulf and cast anchor off the shore. The surprise of the inhabitants of Gela Krini was nothing compared with that of a party of five Turkish officers, who, from the very crest of a hill towering above the village, watched the vessel through their telescopes.

These Turkish officers were on an urgent and important mission—to block out the Hellenic fleet from the gulf of Arta. Behind them, at the bottom of the deep ravine, were a number of heavy guns which had been dragged all the way from Saloniki, a long and difficult task, and with this artillery they had been ordered to fortify the strait.

To reach the strait, however, the Turkish column had to run the gantlet of the battleship's heavy guns, which meant sheer destruction. Somehow or other they must escape the man-of-war or prevent her interference with their work, but to do this seemed impossible.

In the midst of their discussion a young officer who had been listening said he could hold the vessel a prisoner if they would allow him. His pleading won, and, hurriedly changing his clothes for those of a shepherd, he doctored in that disguise to Gela Krini.

Late that night a number of figures stole through the dark alleys of the village toward the shore. Close to the water's edge was an old boathouse, used as a shed for repairing boats. This partitioned off and by the flickering light of a taper searched the black interior. At length there was a gentle rattle and from the gloom emerged Hassan, stripped to the waist, dragging a heavy chain. This, with the help of his comrades, he began to pull, and after an hour's laborious work the end of the great chain—once the cable of a Turkish vessel—was reached.

From the beach the chain was loaded on board a large calque, whose sides and floor had been covered with cloth to deaden the sound. This task accomplished, three men got in with Hassan and rowed with muffled oars toward a large rock in the middle of the gulf. Round this rock the chain was laid and securely fastened. One man having been landed on the crag to keep guard over this end, the boat set out cautiously for the battleship, looming like a phantom in the distance. Not a sound did the men make as link by link the massive chain was paid out over the stern into the still water till they reached the vessel.

There was an excited gleam in Hassan's eyes as, with a sign to his comrades, he gradually lowered himself into the dark water, guiding himself by passing his fingers over the battleship's plates. A slight grating of the chain against the hull was all that his anxious companions in the boat heard, though now and then a rearing pull was felt on the line that Hassan held, directing them how to pay out the chain. Hours rather than minutes seemed to have gone by ere the young officer came to the surface. So exhausted by his long dive was he that he had to be almost lifted into the boat.

"It is round the propeller," he gasped. "I have fixed it so that nothing can move it. Back you go."

Then link by link the tedious work was renewed until the boat returned to its starting point, where the other end of the chain was secured. The risky task was done, and the Hellenic battleship was securely moored to an immovable rock by a double thickness of cable.

The early rays of dawn revealed a sight which astonished the Greek commander. A whole regiment of Turks were on the march toward the strait of Arta, with train after train of artillery, the last of which disappeared beyond the intervening head before the ship's guns could be brought to bear on them. The commander gave orders for the guns to be run out and decks cleared for action, while the anchor was weighed, his intention being to prevent the Turks from fortifying the strait before they had become too strong. "Full speed ahead!" went the order to the engine room, and, propelled by her mighty screw, the battleship advanced, only to lurch backward as if dragged by some unseen force. Woe! as the engines would, the vessel seemed to be in an enchanted circle, beyond which it was impossible to go.

It was not until the sun's rays had penetrated the deep blue water alongside that the secret was revealed and the massive chain was discovered passing round the ship's propeller and the adjacent rock.

Before it could be removed, however, the strait had been sufficiently fortified by the Turks and a powerful Greek warship lay a helpless prisoner within the landlocked waters of Arta.

Kindness is a language the dumb can speak and the deaf can hear and understand.—Bovee

## HE MOVED HIS WELL.

It Wasn't Pulled Up Nor SAVED Up, but It Did Change Place.

There is an old story about the man who pulled up a well and took it to a more desirable location and another about the man who took up a well, sawed it in sections and used one of the sections for a land roller. They were exaggerations, but the experience of Ezra Tetlow proves that a well can not always be classed as a permanent fixture. Ezra had a well in front of his house. It had never been a success as a well. Ezra wanted it filled up. One way would have been to haul stones or earth and use the material to fill it. But Ezra had no team.

So he went at it with a shovel. Working on the side of the well next to the road, he began to dig and to throw the dirt into the well. He kept this up until he had filled it, which was not a difficult job, as the well was rather shallow.

But when the task seemed finished Ezra found that he had made a new hole by the side of the one he had been filling. There was but one thing to do—he proceeded to fill it in the same manner. Of course this resulted in still another excavation, which in turn received similar treatment.

As all of Ezra's digging had been on the side of the well nearest the road, the result was that the hole in the ground was finally moved out into the highway.

Judson Tolliver was commenting on the exploit one day down at the corners. "Queer thing Ezra did," he remarked. "You know that old well that stood in his front yard? Well, sir, he's moved it thirty feet from where it was—moved it clear out into the road!"

"How'd he do it?" inquired another representative citizen.

"You'll have to ask Ezra," replied Judson. "But he did it, sure enough. I saw the well in the road yesterday, and I saw the track he made movin' it. The thing plowed a furrow four feet wide all the way."—Youth's Companion

## OUR GOLD CERTIFICATES.

Why These Notes Have Never Been Made Legal Tender.

Answering the question, "Why are gold certificates not legal tender?" the New York Times says:

The first gold certificate act was passed in 1863, and at that time the issuance of these certificates was confined to certificates drawn to order. It was not until later that bearer certificates were put out.

These certificates were issued at the request of New York banks which at that time were handling large amounts of gold and which sought the issuance of gold certificates by the government as a matter of convenience, thus obviating the constant handling and rehandling of gold coin. These certificates were regarded not so much as money as warehouse certificates for money, being exchangeable at all times upon demand for the actual coin.

The question of making the certificates legal tender was not, to the knowledge of the authority consulted, discussed when this suggestion of the New York banks was carried into effect by act of congress. The fact that it was decided to begin with, to limit these certificates to certificates to order would have been a barrier in the way of making them legal tender had the suggestion been advanced.

So much for the authorization of gold certificates and their not being made legal tender then. Financial authorities point out that there has been in the years since no practical need for taking this step. Gold certificates are in practice accepted as in every way as good as the gold itself, and they are immediately convertible into legal tender by surrender and exchange into gold.

## Wit of Disraeli.

There is a story about Disraeli that is much like him and will give an idea of what he was at this time (1877). As he was leaving a house he asked some one to give him his arm down Piccadilly. The man, who must have been a person of some wit, said, "At such a time as this I should wish to be met by my creditors." "No," said Disraeli, "it is not at such times that your creditors meet you. Your creditors meet you when you are carrying a bundle."

There you have the literary quality of the man.—E. S. Nadal in Outlook.

## Queer Human Nature.

"Man's a funny proposition!" "What now?" "When he reads a medical book he fancies he has every disease described, but let him read the work of a moralist and all the faults pointed out he sees not in himself, but in his neighbor."—Boston Transcript

## Bound to Rise.

"He is one of the most stupid bores I ever met." "And yet he seems to have accumulated money. Fortune appears to have knocked at his door." "I don't believe she merely knocked; she must have broken right in."—Brooklyn Citizen

## No Cause For Complaint.

"Oh, my tooth aches dreadfully! I don't see why we can't be born without teeth." "I think, my dear, that if you will look up some authority on that point you will find that most of us are."—London Telegraph

## A Real Wonder.

Aladdin was exhibiting his wonderful lamp. "It's an auto lamp," he explained. "That won't go out just as a traffic cop heaves in sight."—Pittsburgh Post

REPORT OF CONDITION	
OF THE	
United States National Bank	
Under date of official call, June 30, 1916	
RESOURCES	
Loans and Discounts	\$284,207.37
Bonds, Securities	83,038.88
Furniture and Fixtures	3,000.00
CASH AND EXCHANGE	105,141.06
Total	\$475,387.31
LIABILITIES	
Capital Stock	\$ 50,000.00
Surplus and Profits	28,549.33
Circulation	49,000.00
DEPOSITS	347,837.98
Total	\$475,387.31

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