

JUPITER AT HIS NEAREST

HOW TO SEE TWO OF HIS MOONS

Callisto and Ganymede as They Appear in Field-Glasses

WHAT ARE THEY MADE OF?

By the C.N. Astronomer

The great world of Jupiter is now at his nearest to us, being 41,900,000 miles away on Friday, March 10. He follows close in the wake of Mars and is the brightest object in the south-east sky.

On Sunday night, March 12, all four of his Galilean moons will be grouped together on his right or west side, an interesting spectacle seen through a telescope, but too close to Jupiter to be perceived with field-glasses.

By the following Tuesday and Wednesday night Jupiter's two outer-most satellites, Callisto and Ganymede, will be sufficiently far from his glare to be perceived with good sight through the glasses.

The Easiest To Perceive

They will appear as small stars, Callisto, the farthest away, being nearly one-third of our Moon's apparent width distant from Jupiter, while Ganymede will be approximately half the distance, or about one-sixth of our Moon's width from the planet.

The other two satellites, Io and Europa, are much too near to be perceived without a telescope or glasses of unusual power.

The fourth satellite, Callisto, scarcely attains to sixth magnitude; but through the glasses it is the easiest to perceive on account of its angular distance from Jupiter's great world.

A Strange World

Ganymede, about fifth magnitude, might be easily seen without the glasses were it not for the proximity of the planet. It is 664,200 miles from Jupiter and 3273 miles in diameter, so were Ganymede as near as our Moon it would appear half as wide again.

Ganymede is the largest and most massive of all Jupiter's moons, but is only a little more than twice the density of water, so must be composed of much lighter materials than the Moon or our own world.

Ganymede would appear a strange world to us, with from one hemisphere the great globe of Jupiter for ever suspended in the same place in the sky but nevertheless, going through all the phases like a gigantic moon, often blotting out the Sun by day and the other moons by night.

Gigantic Sphere of Pumice Stone

Callisto would be an even stranger world, for though about 3140 miles in diameter as a whole it is only three-fifths the density of water. What can it be made of? There is no evidence of atmosphere or clouds, and it is a dark world, so a gigantic sphere of pumice stone would appear to explain its conditions best of all. It is 1,169,000 miles from Jupiter, and at this distance the great planet would appear in the sky of Callisto between 9 and 10 times the width that our Moon appears to us.

What a glorious object to see always suspended in the same place! Like Ganymede, Callisto appears always to keep the same face toward Jupiter, as our Moon does toward the Earth, so his great globe would for ever remain immobile in the heavens as seen from Callisto, through a day and a night which last for nearly seventeen times the length of ours. G. F. M.

To Mothers Everywhere

A celluloid toy may cost your child its life. Do not have it in your home

THE MAN WHO KNEW WHAT HE WANTED

Finger-Print Man and Typewriter

A most astonishing letter has lately been made public.

It was written by Sir William Herschel (not the astronomer, but the distinguished Indian Civil Servant who was first to impress on our police the importance of a man's finger-prints), and it was written to his undergraduate nephew from India in 1857, about 17 years before the first typewriting machine was put on the market.

This is what the letter says:

"I want a writing machine, a piano that shall print a letter for each note I touch. What's the difficulty?"

"I want a box with little knobs on the surface arranged so as to fit the fingers as the hand is put down on the table; one set for the right hand and one set for the left; the paper to lie in the middle, on a traversing platform, and as each note is pressed I want the hammers of the piano to come down and stamp their letter on the paper, shifting the paper at the same time, of course."

"Try what you can do when you get clear of Cambridge, or else stick the idea into someone's head who has leisure. It must be done. I can't waste time in writing as I do."

It seems amazing that a man who knew nothing of the typewriter should have written such a letter, but it is true.

OLD SONGS OF THE PACIFIC PEOPLE

Words and Music Will Not Be Lost

Long before the European settlers went to New Zealand and the many other islands of the Pacific Ocean the native people had composed songs.

There are still living in New Zealand some old Maoris who know how the ancient chants and recitatives went. A member of the staff of a museum at Honolulu, who is making a tour of the Pacific to collect the songs of the natives, has paid a visit to Auckland and was able to gather some valuable information.

Some of the experts of the Maoris who are still versed in the folklore of their ancestors were assembled to meet the visitor, who spent a day noting down the words and tunes. These songs are not known to be on record anywhere else, so should be very valuable to those who make a study of the customs of the very interesting islanders of the Pacific.

It is only 90 years since British colonists began to make permanent homes in New Zealand, but so rapidly have the Maoris adopted English customs that they can all speak and write English, and their old songs are in danger of being forgotten.

WHO WAS GEORGE WASHINGTON?

Born Virginia, 1732. Died Vernon, 1799.

George Washington, though born in Virginia, came from English stock.

During the war in America between England and France he fought under the British flag, but in the Rebellion took arms for his native land. He handled his forces with supreme ability, and though it was, considered as an army, ill-disciplined, ill-fed, and ill-equipped, he led it in the end to complete victory over the English troops.

His compatriots would now have made him king, but he was as modest as he was noble, and though he accepted the position as head of the nation it was only as the elected President of the United States.

GLOOMY GEORGE

ZOO BULLY WHO WAS SENT TO COVENTRY

And Adolphus, Who Has Joined the Distinguished Veterans

GIANT RAT FROM KENYA

By Our Zoo Correspondent

Some of the inmates of the Zoo's Reptile House might almost be suspected of a craze for 'slimming,' for never before have long fasts been so fashionable.

Even George, the famous old alligator, appears to be affected by the popularity of hunger strikes. During the winter months this great 12-foot alligator always becomes rather torpid and disposed to be indifferent to food for weeks at a time; but this winter George has been unusually abstemious, and he seems to be deeply depressed.

In Solitary Confinement

It is four months since he took a meal, and though he is far from good-tempered he is certainly less aggressive. He pretends not to notice the keepers when they enter his home to clean; and if any of the smaller alligators and crocodiles in the next-door pond manage to find their way into George's enclosure he snaps at them viciously, but he no longer tries to kill them.

Ever since the new Reptile House was opened George has lived in solitary confinement, for he has the reputation of being the greatest bully in the Zoo and has been responsible for the death of countless members of his own tribe.

His depression may be due to dislike of solitary confinement; but, on the other hand, it may be due to a fear of what might happen if he ever comes in conflict with a worthy adversary. For George has a secret: he has fought so often that he has lost several teeth—in fact, he has only about six or seven teeth left in his powerful jaws.

A Record For Longevity

Another creature has just been added to the Zoo's list of distinguished veterans. This is Adolphus, the giant rat from Kenya, for he is about to celebrate the seventh anniversary of his arrival here.

The average lifetime of a fortunate rat is said to be five years; but Adolphus was already nearly twelve months old when he came to the Zoo, and so has established a record for longevity among Zoo rats. He is beginning to show his age, for his brown coat has turned completely grey, and his whiskers are snowy white. However, in spite of his years, Adolphus will still come out of his cage to perch on his admirers' shoulders or creep inside a warm coat; and his manners are perfect—unless his tail is held, an indignity he strongly resents.

C.N. QUESTION BOX

Questions must be asked on postcards, and sent to C.N. Question Box, John Carpenter House, Whitefriars, London, E.C.4, one question on each card, with name and address.

Are There Any Serjeants-at-Law Today?

Yes; in Ireland. Mr Alexander Martin Sullivan is one. In England appointments to the order ceased in 1873. Lord Lindley, who died in 1921, was the last of them.

Where Are Brazil Nuts Grown?

The Brazil or Para nut is the seed of a tall tree of the order Myrtaceae, a native of Brazil, Guiana, and Venezuela. It grows in large forests on the banks of the Amazon and the Rio Negro.

Why is the Moon Sometimes One Colour and Sometimes Another?

The colour changes are due to the variations of the Earth's atmosphere, through which the Moon is seen.

How Long Did the Trial of Warren Hastings Last?

More than seven years. The impeachment was decided upon in 1786, but the trial, which took place in Westminster Hall, did not begin till February 13, 1788. It ended on April 23, 1795, in a verdict of Not guilty on all charges.

It's a joy to see them eat



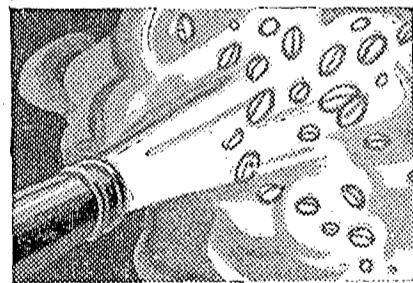
Young WILLIAM is insistent about his breakfast. It must be Puffed Wheat . . . those fat, golden brown grains, tempting to those lazy appetite. How he enjoys them . . . and what nourishment they provide.



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