THE IMPENETRABLE.

TREMENDOUS MAGNITUDE OF THE STARRY SYSTEM.

S.

read, " read. "

olas

their

their

they

id are

thers

walk.

ndian

camp

ps are

or of

з сап-

m the

to the

r aid

plen

ollars

light

in the

L On

o the

en jar

l then

onies,

.es in

's are

1 they

water

have

s jars

1 each

n for-

aiting

il the

warns

duty,

t once

conse-

train.

ins of

many

of an-

num-

e, but

prove

W88 8.

study

id the

fally,

ing if -those

arned

at the

z will

istory

ames

me is

aoher

from

aphy.

select

louble

Learn

Lished

o do.

st his

lat it

ter to

egan:

pted to of these

ver.

Ig.

What We Know, What We Helleve and What We Do Not Comprehend of Our Solar System-Considering Stupendone Distances by a Scale Greatly Reduced.

It is worth while making an effort to picture to ourselves the vast extent of the starry system in which we reside Having gained some faint notion of the extent of the lesser solar system, which occupies a small corner of the stellar system, we must work outward from that beginning. Let us take for our unit of measurement the space which separates the earth from the sun, and let the 92.000.000 of miles of this distance be represented in our minds by a single inch. In proportion the sun itself must be pictured by a tiny ball less than one hundredth part of an inch in diameter, while our earth must be a mere speck, less than one ten-thousandth of an meh in diameter. And this little sun and this minute earth must be just on inch asunder.

Following out the same idea, Mercury and Venus, being closer to the sun than we are, have to be less than 1 inch away from him, while Jupiter will be 5 inches off, Saturn will be 10 inches off, Uranus will be over 19 inches off, Neptune will be almost 80 inches off. Then the solar system as a whole, leaving only ont of the question certain comets which travel farther, will be inclosed in a circle less than 2 yards in diameter.

The question arises next, What will be the proportionate size of the stellar system on this same scale of measurement? If the solar system is to be comprised with a hoop not two yards across, how wide a space should we allow to the surrounding system of stars, "our universe?" How near will be the nearest of outlying stars? And the answer is sufficiently startling. If the sun is reckoned to be one inch away from our earth, if Neptune is reckoned to be less than three feet away from the sun, then, on the same soale, the star which lies closest of all outer stars in the whole universe to us, Alpha Centanri by name, must be reckoned as lying at a distance of about 314 miles. And between the two-nothing; at least nothing in the shape of a star. An occasional comet may lag slowly along in the darkness, finding its way from one sun system to another, and dark bodies, cooled suns, may possibly float here or there unseen by us. but of stars. radiant with heat and light, none is found in that wide area. Astronomical writers sometimes talk

of stars "in the vicinity" of the sun, and this is what is meant by "vicinity." Think of the distances implied. Our whole solar system is first brought down into a small circle, two vards across

Making the Mousic Tessers The opacity of the material and in

the mosaics of Rome, Ravenna and Yon-An is due to minute particles of oride

of tin held in suspension by the glass. and the texture of the glass is dull and granular. The material now being used at St. Paul's owes its opacity to powdered feldspar, an essential ingredient of granite, and itself a natural but very infusible glass. The texture of this material is smooth and vitreons, and it is consequently less retentive of dirt and more easily cleaned than the glass containing the oxide of tin. The various colors are obtained by mixing metallic oxides with the ordinary ingredients of glass, to which the powdered feldspar has been added. The oxide of cobals produces a purple blue color, and the oxide of copper, according to its state of oxidation and the proportion in which it is used, gives a blue, a green or a stock in England. But destiny kept the

red. Black is obtained by the oxide of manganese, green by the oxide of chrominm. nink by the oxide of gold and yellow by the oxide of uraninm. By combining the oxides a mactically unlimited palette may readily be obtained.

The mixtures, in the state of powder, round the grate of a furnace, and when fusion is complète the viscous glass can be coiled upon the heated end of an iron rod and removed for use very much in the way that thick treacle may be gathered round the bowl of a spoon and removed from the jar to the plate. A mass of molten glass thus collected is allowed to fall upon a flat iren table, inches square and half an inch thick. The slabs are removed to an oven, where when cool are broken by a hammer or chopped by a ministure guillotine into small outes or "tesserse." "Tesserse" is perhaps the more appropriate term. as it does not suggest that geometrical accuracy of form which is implied by ontes -- Contemporary Review.

A Drama In the Old Tortament.

There is one short story in the second book of Kings which is wholly dramat io in essence, and the narrative form is so subordinate in feeling to the dramatio spirit that even a casual reader, if at all critical, must be impressed by this. Indeed so eccentially dramatic is the story that in closely considering it we may say it falls naturally into the necessary sots and scenes lightly and delicately held together by a thread of narrative which almost serves the purpose of the chorus, although there is abso-Intely no comment-another dramatic feature-and the subject is left to speak directly to the reader's mind.

The story is the well known one of Naaman the Syrian and his recovery from leprosy, and in simplicity, directness, movement and dramatio fire the story cannot be surpassed. It is told, too. with such impartiality that we seem to be looking upon life itself, and give you to me," he said, "I know such is its rare art that there is abso- that," she answered, "but I belong to lute freedom from any feeling of the myself-I give myself away." more than 90,000,000 miles and then, | personality of the anthor. And, though so brief, the narrative holds a great of birth as an Arundel, and she won deal-first, the revelation of the po- over Cardinal Wiseman for her interare always the necessary groundwork ing-marriage in the Catholio church, and frame, there is seen that separate the wife's free practice of her religion and yet at the same time interdepend- and the right to bring up her children cential to the drama. Then, too, the more so, perhaps, as Burton had no definarrative falls inevitably into the usual nite faith of his own. But even now the Aristotelian analysis of dramatio seized him once more and in the strantragedy-the beginning, increase, cli- gest way. He went off without a word and all takes place in such a way that to take leave of her as she lay in bed. that purification of the mind by calling forth the feelings of pity and terror, the tral double. "My time is up, and I artistic and ethical aim of tragedy, is have gone. But do not grieve. I shall fully accomplished.

LADY BURTON'S MARRIAGE.

Great Travelor's Wile First Met Her Danderil Idol.

Lady Burton's marriage was more romannic than anything in fiction. It was "forevold," of course. To a woman of her mystical temperament and view of life that was almost a part of the ceremony. A gypey woman wrote out her destiny in Romany. "You will bear the name of our tribe and he right proud of it. You will be as we are, but far greater than we. Your life is all wandering, change and aciventure. One son! in two bodies in life or death, nerer long apart." The proof seemed to be in the impossibility. The name then borne by the woman who was to be "right proud" of her union with one of gypsy race was Arundel, and the Arundels are of the oldest and proudest appointment. One day, when she and her family were at Boulogne, "the vision of her brain awakening" came toward them. "He was 5 feet 11 inches in height, very broad, thin and muscular. He had very dark hair; black, clearly defined, sagacions eyebrows; a are shoveled into cracibles standing brown, weather besten complexion; Rooney and Mackin. straight Arab features; a determined looking mouth and chin nearly covered from a severe illness. by an enormous mustache. I have since heard a very clever friend say that he the residence of Mr. John Conley. had the brow of God, the jaw of a devil.' But the most remarkable part of his appearance was two large black, flashing eyes, with long lashes, that pierced you through and through. He looked at ley have returned from Speacerport, where and is pressed into a slab about six me as though he read me through and they were called some weeks ago on the ac. tle. I was completely magnetized, and father. they are allowed to cool slowly, and when we had got a little distance away I turned to my sister and whispered to her, "That man will marry me.""

All that followed was worthy of this chalking upon the wall, "May I speak Mrs. William Rich, who has been ill with view of the machanitan work intermittent fever, has recovered and is able of, mid : "Not yet." Not yet. hard by for the answer. It was unpropitions at first. "No, mother will be angry," but this was only another way of saying, "I shall be pleased," for nis, of North strast, spent Wednesday of "mother" herself had afterward to lis last weak in Fort Byron, visiting mistives. ten to this confession, "The moment I Miss Nelle Breen of Port Byres spent saw his brigand, daredevil look I set Thursday of last week in town withing rame him up as an idol and determined he sives. was the only man I would ever matry. " ... Mr. S. Ballagi of Port Byron was in town Her cousins gave a dance to help mat-ters, and "there was Richard, like a Miss Nellie O'Conne star among mahlights." "That was a Tuesday of last week in sown visiting relanight of nights. He waltsed with me tives, once and spoke to me several times, arm round my waist to walts, and my aloves. I never wore them again." He on friends in town the past week. went away to Africe for six years, no The Missas Mamie Enright and Mary doubt to help make a name that might | Carr spent Sunday last at Gato, visiting overcome the resistance of her family. Iffends. When he came back, he proposed. He was not kept waiting for an answer. "I would, rather have a crust and a tent with you," she said, "than be queen of all the world." "Your people will not

DIOCESAN NEWS

Solor Point. The E. D. Parsons Maliling company

have closed the malt house alter a long sets \$02. John Porter has just recovered from an attack of starlet fever

Mr. W Kendall and wife have returned from New York. Mr. K. has returned his position as conductor on the N. C. R. R. Mr. Bert Turner and family have re-

soved to Cortland, which will be their future home. Fishing has been very good in Sodas bay

for the last month. Wullard.

Mis. Fannie Flynn is spending the wack

at Auburn. Mrs Helen Morgan and Miss Mary Ryan spent Wednesday last at Lyons,

Drr. Wheeler, who was seriously ill, is Int. proving.

On Thursday, the anth uit .. 30 female pe-

tients were transferred to the Buffalo State! Now IN. & Court Why Mare Ho Has Dal hespital. They were accompanied by Dr. Doran and nurses the Misses Tierney, Mr. John McKenna is showly recovering the principle of perpatual motion. His

Niss Stella Davis of Aaburn is visiting as

Mr. and Mrs. Charles M. Rising of whilds the principle is applied free new nise. I are here, Rochester have returned to their summer home on Seneca lake. Mrs. William Flynn and Mrs. Grant Row

through in a moment and started a lit- casion of the illness and death of their Mrs. Elizabeth Nicolla visited Sodus on

Saturday last. About to members of the Anelent Order

of Hiberalans from here attended the state opening. He made the first advances by convention held at Auburn on Tuesday last. to resume ber duties,

Weedsport.

Mr. Matthew Conway and daughter An

Miss Nellie O'Connell of Anburn spon

Mrs. I. Lawlor, of Jackson street, spent and I kept my mash where he put his Saturday last in Auburn, visiting friends Miss Alice Hearn of Port Byrne called

Spencerport. Mrs. Mary Dunn of Fairport was the

guest of friends for a few days last week. Miss Maggie Nibloch of Rochester speet Sunday with her parents. Mr. Thomas Maskill, sr., is reported as

Cales with Mail erra failt an subside wite, three datappends

Miss Zin Merfwanner, whe

Ray 15 d

the altes.

and have the state

HERE'S ANOTHER

"Arrest Perpetual Motions

ing justdoof the becadenist the imfield

Von Holmohuers

bowerse, that The

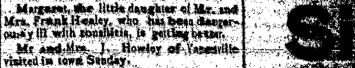
gravitation date the

griopa .

Runh wills

fering with neuralpla the part water in the contract of the second secon and set and states of the Art States of States - Miss Margin Colins of Cananda Well h pending the manuar with ber an

Mus Panalo Mooney is she when the Mr. S. Wilcox and daughter Manging Free Gorhum, were the guests of Mr. and Mrs. in me. Henty Hanarhan over Sunday.



and all ran at ania ta a iervous and one id Count Other ton Holesahmer of Ok hampent in me tamwa Ia, i laims to have discovered It. ad's Barres and File h a trick A fire takin machine is in the shane of an inverted biorole, the s-breek mandling high in the tolt better min atoms air. The fitut wheat is the our to ANT MIL MANCH LABOR principle is contained in a 12 by 12 by day's work and sheet 18 inch pine goods box. A marrow open-



simple shut if any plant in the second states of the second secon C. C. Starte in Alien the Which the

tunch Ers suffit in hater of whether a canading the seal ha given preserve

AT AT SE the was than the Dide Haces bit 4 annen Generalde auf an 1995 h.

1367

Ripane Televiert

tire of the which, and the mechanish-inside strives the which. The little box is kept looked, but the there is wheat driven by the wonderfor mechanism inaide revolt of the and and anticers obla other at the rate of many's 200 me

every inch in those yards standing for on every side and above and below, is i an encompassing void of \$14 miles, every inch of those miles again representing more than 90,000,000 miles And then we come upon one gleaming star. Only one quite so near. Another star in the sun's "vicinity," known as 61 Cygni, would lie at a distance of seven miles, and the brilliant Sirius would be over ten miles off. Others must be placed at distances of 20 miles, 50 miles, 100 miles. It is easy to start with a list of these figures. It is not easy to say where one should stop. That the starry system has limits we do not doubt, but to define those limits is not possible. On such a scale as is given above those limits certainly would not lie within a distance of 100 miles nor of 1,000 miles. It is believed that some dim stars, barely to be detected, may be 10.000 times as far away as our sun's nearest neighbor. Alpha Centauri, and this at once gives, even on our very much reduced scale, a line from the center of 85,000 miles. Suppose that the limits of the stellar system lay somewhere about there. Thirty-five thousand miles each way from the center would mean a diameter for the whole of 70,000 miles. Imagine a starry system 70,000 miles across from side to side each inch in those miles representing 92.000,000 of real miles, and somewhere in the midst of it our small solar system, just two yards across, separated from all other stars by a wide blank of three or four miles.

That would be stupendous enough. But we have no reason whatever for supposing that the limits of our universe do lie there. The true boundaries of the stellar system may be twice as far, four times as far, ten times as far. We do not even know with certainty that our solar system is placed anywhere near its center, though this seems rather likely. Far off as the boundary reaches in one direction, it may reach much farther in another direction .--- Agnes Giberne in Chambers' Journal

The Law and the Lady.

Patient Man-Suppose a woman makes it so hot for her husband that he can't live with her and he leaves her, what can she do? Lewyer-Sue him for support.

Patient Man-Suppose she has run him so heavily into debt that he can't support her because his creditors grab every dollar as quick as he gets it, besides ruining his business with their snits?

Lawyer-If for any reason whatever he fail to pay her the amount ordered he will be sent to jail for contempt of conrt. Patient Man-Suppose she drives

him out of the house with a flatiron and he's afraid to go back? Lawyer-She can arrest him for desertion.

Patient Man-Well, I don't see any thing for me to do but go hang myself. Lawyer-It's against the law to commit suicide, and if you get caught attempting it you will be fined and imprisoned. Ten dollars, please. Good

day,-New York Weekly.

the passage is easy between them.----Lippincott's.

An Ecoentrio Traveler.

absence, he suddenly returned to his my love as then." The marriage came house and was accidentally met in the at last -London News. hall by his son.

"How are you, my boy? No, no; can't stay to dinner. Only looked in to change my hat. Goodby. I have kept the fly at the door," and he was off A08171.

One day when his son's yacht was at Corfu he made an unexpected appearance and was with difficulty permaded by his daughter-in-law to stay for breakfast. During the meal the steward reported that he could find no nails with which to repair a bookshelf.

"No brass beaded nails?" oried the colonel, who had been fidgeting in his chair and saw in this want an opening for his peculiar talent. 'No brass headed nails' I'll get you some," and he tumbled over the side into his boat. Was.

"Here you are, my boy !" he cried triumphantly, producing a small packet. 'Here are nails-real good ones. Bought them myself a Birmingham, but had to go round by Honolula and San Francisco. What! Too large? I'll get you some smaller ones. Goodby." And it was only by gentle force that he could be restrained from starting off forthwith .----Pearson's Weekly.

Washington's Tallest Polloeman

Policeman John T. Kennedy is the tallest man in the department. He measures 6 feet 6 inches and weighs 260 pounds. He has a peachblow complexion, and talks in a deep down Marine band voice. He is not only remarkable for his dimensions, but for his police record as well. He was born in Westmoreland county, Va., Feb. 25, 1871. He was appointed on the police force July 1, 1893 .- Washington Times.

She was a devout Catholic, by right litical, social and religions conditions of mediary. He sent for Burton and exthe times, and then within these, which soted three promises from him in writent play of character which is so es- in it. They were readily made, the five acts, and these carry out strictly she had to wait. The passion for travel max, decleusion, consequence or fall- of warning, sending only his apparition [br born on Friday last. "Goodby, my poor child," said the asbe back in less than three years, and I In this short story, more than any- am your destiny." While he was away where else, the genius of the Hebrew she wrote a diary of the doings of the approaches to that of the Greek, and whole world of civilization in so far as she thought they might interest him represented the Dansville branch of the A and sent it of to him in installments by O. H. at their convention is Aubarn this every fortnight's post. He came back to week. claim her in due time, much as Alonso Colonel G., a considerable landowner came back from the dead. "He had had in the midlands, had a mania for tray- 21 attacks of fever, had been partially el. or rather a spirit of unrest which paralyzed and partially blind. He was Charles A. Courtney, at Honsoys Falls Sair

Bird Life In the Antarotic

Granting that highly organized crestures can exist there, it is passing strange that they should consent to do so or make a voluntary habitation in that hell of cold and darkhess which Snowy boughs were lowly bended Norse fancy imagined as a place of torment more apps'ing than the lake of liquid fire. One would have thought arotio life must coase, because, even if pos- | Brightly rose the sun, and gladly sible it was not worth living; that there would be a voluntary ecodus of Darkly did it set, and sadly beasts, as of birds, before the winter setting of the sun, and the slower moving On soft checks the ross and life mammals would go, to return no more. As a curious puzzle, eractly reversing the idea in the foregoing centence, al low me to give the following informa- From our hearts love's tendrills creeping Five months later he reappeared at New Zealand lie several small groups of O'sr the spot where then art sleeplag Constantinople, where the yacht then islands-the Snares, the Traps, Antipodes, the Macquaries, the Aucklands, Campbell island, Emerald island, etc. Some of these are mere barren peaks of rock, some are partly covered with low sorub and grass, but almost all of them | One of its bright links is harted are unreeries of the sea birds, which may be counted by thousands and tens Though it leave us broken hearted. of thousands on those lovely places, The penguins especially, in many species, and some of great size, use these islands as their breeding places. When during the summer the eggs have been hasched and the young ones attended to, the younger generation is left on the nurseries and the adults set out for the land around the south pole. They leave in autumn thin and attennated with the care of their families. They go off for the winter to the clime of cold and ice. and they return six months afterward. fat as butter, to their old hannts. Their soundrons cover the sea for miles swimming abreast in long columns.-New Zealand Correspondent.

wiy HL Hiss for his speedy recovery. Miss Jannie Prendergast of Rochester je

spending a few days with her persons. Miss Maggie Delebanty of Rochester was in town on Monday

Mrs. William Ryan and daughters of Ses, Laki and Han The Brookport spent Monday in town visiting friends. Mrs. James Morgan is visiting her daugh-

ter in Buffalo. She expects to be absent two or three weeks. The many friends of Mr. and Mrs. M Meskill of Newark, formariy of Spencerport, will be pleased to hear that they are

rejolding oven the advent of a little daugh- T. Shortsville.

Miss Anna Dailor of Geneva spont Sam day with relatives in this place. Mrs. Harbertson is ranning the bakery recently vacated by Mr. Brown.

· Dansville.

P. F. Morgan and Andrew J. Murphy A large number of people went from here

on Friday of last week with Father Dougherty to'attend the funeral of his cousin, Mrs. prompted him to keep continually on the move. This harmless eccentricity made his whereabouts a perpetual mys-tery. On one occasion, after months of long ramember her for her kindgees and goodness to the poor and passiv, her charity and consideration for all. She was a pioneer member of the Aloysian Reading prote and the following verses on her death and from the gifted pen of Miss Matible Barrett "In memory of Mrs, Charles A. Courtney matried May 2, 1894, died May 2, 1800,"

> Neath the wealth of May ; From loved line fond prayers seconded

On thy wedding day,

Beat our hearts with sheer;

Meet we round a bier. April's skies so dark and chility

Loit the lily queen

Cling our tenderest punyers:

Gentle heart, so pure and lowly. Through our troubled years ; Like the starlight calm and holy

Thy sweet life appears.

From our circle's chain:

Thrice the blessed wild.

God is love, and love is only Purified by grief.

While we imger sad and ionely into memory's wreath. Blue forget-me-nots are twining

With the asphodel; And Hope's starry eyes are shining On Faith's citadel.

Caledonia

This community was shocked on Salur y morning by the announcement of the leath of Mr. Thomas Gilligan, one of our best known cliffent, who dropped dead that morning of heart disease. Mr. Gilligan was our church sexton, & devout Christian and a very exemplary man in every respect

Morgan & De

878 E. Mats St. Bat Ċ.

Finan blass and a MAT LANCE AVENUE

Manufiotarte and Pith Q the site of bill more

Flowers for Tieral Designe die

PRICES ALMAN Store Den State

PURSUANTAN

PHT.XXXXAX

PLANE W. PAYNE THE Cenches, Conges, Living and

136 mm an anna 1

Trouy snyiding is ensured differently scoupling the Salter Bar all indicionary used or applies indice lar, it de a natural condition Winns are one of medication and intended as a medicing and intended and an and a second secon cent and those physical from overtaxticity of a supplies in any other sta

Ordinary, \$1.00 g tr. so our gallon, ta.on per gallotte The requision of ante Michael Martin It.

FOR MEDICOLS ALC: UR

