TWO POPULAR NOBLEWOMEN IN PARIS



The two most popular women of the aristocracy in Paris are the Baronne de Poliakoff (left), wife of the czar's edviser in French affairs, and the Countess de Montebello (right). Both are lavish entertainers of members of the "smart sets" of America and Great Britain and are noted for their

DISCOVERY THAT GRAVITATION IS CAUSED BY ELECTRICITY, ANNOUNCED

Prof. T. J. J. See, Government Astronomer at Mare Island, Upsets Newton's Law, He Claims, and Shows Gravitation Is Transmitted With the Velocity of Light, 186,000 Miles Per Second-Has Worked on Problem for Thirty Years.

San Francisco.-Prof. T. J. J. See, insulation of the wire, the clothing and government astronomer at Mare island, announced his discovery that of the emission of the X-ray apparatus. gravitation is caused by electricity. He has upset Newton's law, he said, and shows that gravitation is trans- have mass, and when expelled and mitted with the velocity of light, 186, driven away into space with the ve-

000 miles per second. perienced men of science, he said, as-

tion for at least ten years to come. on April 7 and April 14. He also tele- very small masses. graphed his discoveries to the navy department in Washington for trans-

mission to President Wilson. The discoveries are made public nature of gravitation before the Amerinual general meeting in Philadelphia.

The law of universal gravitation was established by Sir Isaac Newton in cause of gravitation from phenomena, and I frame no hypotheses," said Newton; and he added, "but for us it is exist, and acts according to the laws the heavenly bodies and of our sea."

tance; but that the true law of nature dynamic law, which will apply to the sun in about eight minutes.

Hitherto astronomers have not unbeen known that method of calculation | tained in their orbits round the sun.

solid matter with the electricity; in other modern electrical discoveries, fact electricity cannot be separated that a true mechanical basis for graviit in corkscrew fashion, and in this the velocity of light, helical motion throws off at every step millions of particles of solid matter from the earth and sun force them to moving with the velocity of light, gether, by reaction, just as would hapelectricity, and go right through the each had six guns directed outwardly, and escaped.

bodies of men and animals, as in case The particles of metal carried away,

as the current revolves round the wire. locity of light there is an equal re-For 30 years Professor See has action of "kick back," and often times worked on the problems of light and the "kick back" is so strong as to gravitation. Able, impartial and ex- twist up the wire. Electricians do not seem to have understood either the sure him that the way is now opened twisting of a wire by an escaping curfor more important developments than rent, or why it is so destructive to any which have occurred in the phys- life, and so powerful mechanically. ical sciences for two centuries. If he After a careful examination of the lives the work will occupy his atten- problem Professor See claims that it is all because of the small amount of So epoch-making does he consider solid matter carried in the current, his discoveries that he sent long cable | with the enormous velocity of lightgrams on the subject to Lord Raleigh, the energy being as the square of the head of the Royal society of London, velocity, and thus enormous even for

In dealing comprehensively with the wave theory of light, Professor See discovered that light is not really due to waves in the so-called Aether, but is coincident with the discussion of the really caused by electrically charged particles shaped like eggs, revolving can Philosophical society at the an- about the shorter axis, and giving by their revolution an impression of wave motion which deceived many eminent philosophers of the past century. Thus 1686, and has been the basis of our by penetrating into the nature of light knowledge of the heavenly motions for Professor See was able to restore Newover two centuries. Newton himself ton's theory largely, at the same time repeatedly declared during his life retaining the advantages of the Aether time that while he had formulated the wave theory, without its manifest and law of attraction and explained its ap- admitted disadvantages, and fantastic plication to the sun and planets, the and violent assumptions. By this datearth and the moon, he did not know | ing and skilful innovation he puts the the cause of gravitation. "Hitherto I whole theory of light on a new basis, have not been able to discover the and in line with modern knowledge of

electricity. The particles of light are similar to the particles carried awey in electric enough that gravitation does really currents, but much smaller in size; and the whole theory of Aether is we have explained, and abundantly abandoned as having no real existence. serves to account for the motions of This elimination of the luminiferous Aether represents a milestone in mod-Professor See's announcement is ern progress, and is sure to awaken that Newton's law of attraction is not lively discussions in the scientific cirstrictly correct, except for bodies re- | cles of Europe and America. In April. volving in circular orbits, and thus 1911, quite a discussion was carried experiencing no relative change of dis- on at the annual meeting of the American Philosophical society in Philadelis what is known as Weber's electro- phia, and it was then agreed, by numerous physicists in attendance, that bodies revolving in orbits of any shape. the doctrine of the Aether was essen-Gravitation comes to the earth from tially wrong, but no one was able to substitute a better explanation.

Coming to a popular exposition of derstood the nature of gravitation and the cause of gravitation, Professor nothing has been known about its ve- See said it was really only an apparlocity of propagation. Laplace tried ent attraction between bodies, due to to investigate the velocity of trans- repulsion from them in all directions mission over a century ago, and of minute particles moving at the reached the conclusion that velocity speed of 186,000 miles a second, and was at least fifty million times greater | thus driving them together. Owing to than that of light. On account of the the fact that each body acts as a high authority of Lapisce in as screen to the other, more of these raptronomy, it was a long time before idly moving particles come from withanyone attempted to further investi- out than from the direction of the gate the nature and velocity of gravi- other body, and thus the bodies are tation. But for some years it has forced together, and the planets re-

employed by Laplace was faulty; and It had been recognized by philosoa good many would have believed the phers, he said, that if such rapidly velocity of gravitation similar to that moving particles could be shown to of light, if they could have discov- exist, they would explain gravitation; ered any mechanical basis for such a but it was only when he got rid of the hypothetical Aether, and proved Recently Professor See was able to that light is due to electrically charged show that all electric currents carry corpuscies of solid matter in line with from matter, and an electric current tation had been discovered and this as it runs along a wire curis around force shown to be transmitted with

The repulsion of minute particles These solid particles are charged with pen if two parallel moving battleships

but only one towards each other; the four extra guns on each ship throwing shells away from the other are not counterbalanced by any projectiles thrown in the direction of the other ship, and thus the two vessels, under the action of incessant firing, will gradually approach. The reaction drives the ships towards each other. and a similar reaction is incessantly at work among the heavenly bodies when an infinite number of particles of fine dust is expelled from them with the velocity of light and totally imperceptible to our senses. Thus gravitation is due to the action of repulsive forces in nature, and is really

not an attraction after all. A similar explanation to that made for gravitation is given of magnets, and the magnetism of the earth, which has puzzled philosophers for over three centuries, since Gilbert published his first work on magnets in the year 1600. The magnets are recelving and transmitting outwardly streams of minute corpuscles moving with the velocity of light, and the reaction thus arising gives rise to apparent attraction, the intensity being greatly augmented over that of gravitation because the molecular groups are so arranged as to direct the repulsion of the particles uniformly along certain lines, whereas in gravitation there is a haphazard arrangement of the molecular groups, and the reactions largely destroy each other, leaving only a feeble residue of attraction equal in all directions.

In the case of the earth, under the incessant orbital revolution of the sun, electrifying our globe for hundreds of millions of years, the streams of electrically charged particles containing iron and other substances running through it with almost the velocity of light, has converted our planet into a great magnet, thus confirming the old idea of Gilbert. In confirmation of this view, Professor See points out that the magnetic poles of the earth are essentially perpendicular to the ecliptic in which the sun revolves, showing a fundamental dependence. An intimate connection between the earth's magnetic storms and the sunspot disturbances has been known for three-quarters of a century; but the significance of the observations of John Allen Droun about 1845 that there is a magnetic tide in the earth depending on the moon and varying according to exactly the same law as the tides of the sea, has not been previously appreciated. This magnetic tide is direct observational proof that Weber's electro-dynamic law governs the universe, instead of the Newtonian

In conclusion Professor See pointed out that the electro-dynamic law of Weber accounts for all the known attractive phenomena of the heavens and the earth, and he therefore cabled Lord Raleigh that it is the fundamental law of nature, operating uniformly

throughout the sidereal universe. Previous investigators could not see any mechanical basis for Weber's law; and even Weber himself (1804-1891) a contemporary and friend of Gause at Gottingen, did not understand the basis of his law.

COMMUTES ACROSS THE SEA

Son of Viscomtesse Sombreull Loves Paris, Daughter America, Forcing Mother to Travel to See Them.

New York .- Viscomtesse De Ville lume Sombreuil, who arrived here aboard the steamship Oceanic, has two children, a son and a daughter. The son loves Paris more than any other city on the map, and Egle, the daughter, thinks there is no such place as America. The son will not



Viscomtesse De Villelume Sombreuil.

leave Paris, and the daughter will not leave America; so, the mother is compelled to commute across the ocean in order that she may be with one or the other of her children for a certain period. The mother was joyously greeted by the daughter when the former arrived at the pier.

Northwestern Co-Ed Under Restraint. Chicago.-Northwestern co-eds have been forbidden to give chafing dish parties and make fudge for lingering young swains in the dormitories at

Deer Wrecks a Kitchen. Cold Springs, N. Y .- Frightened by dogs, a deer bounded into Albert Spangler's kitchen, wrecked the place

PLAY HOAX ON THE KAISER? press by the faithful official telegraph | winter putting old trash into the proper place."

> Boys Beat Girls at Biscuit Making. Newport, R. I.-Two boys out of a class of eight, won a biscuit making Rogers high school.

Cruelty Charged to Husband. Atlantic City, N. J .- Mrs. Thomas Damed charged that her husband tied her to a chair and made their daugh-

Making Tomorrow's === World ====

By WALTER WILLIAMS, LL.D.
(Dean of the School of Journalitim of the University of Missouri)

SOCIALISM IN OUR TIME



tralia. - On the siderable dispute, though the oppofirst pages of the nents of nationalization are apparently morning newspa- in a small minority. There are sugpers in Mel- gestions that private capital be enbourne - which couraged by grants of land or other newspapers follow the conserva- the vast interior of Australia where tive British cus- the states have as yet been unwilling tom of excluding or unable to do so. Another suggesnews from first tion is made that the state owned pages - may be railways be, as in India, leased, under seen an adver- suitable restrictions, for operation to tisement with private companies. But neither sugthis opening sen- gestion has any considerable political "We will re- its finances are muddled and it has lieve you of the followed in the development of the worries of man- country, rather than, as in the United aging your own States, preceded and brought about It is not, as have not as many votes as the sumight be expect- burbs of Sydney, Brisbane and Meled, an advertisement of the policy and bourne or the city wards. An appractise of an Australian government parent improvement is noticeable in nor even of the advanced socialistic the railway service and the general element in the Labor party. It is the management shows betterment. The business announcement of a company politician, through the pressure of an which acts as trustee, attorney and enlightened public opinion, is coming. though slowly, to regard the railway

agent. It does represent, however, the drift of Australian political systems as non-political enterprises. thought, as shown in vote, party platform and legislative enactment. For largely due to hot-house politics. Australia is seeking to relieve the individual from the worries of managing his own affairs and turn this management over to the state or comwhich governs most. Paternalism of the State.

in the fundamental law.

Engaged in Many Enterprises.

Melbourne, Aus- | tionalization of railways there is conbonuses to build lines of railway in support. The railway service is crude, this development. The "back blocks"

Socialism Partially in Force. "Socialists and Anti-Socialists in Australia," said W. M. Hughes, labor monwealth government. That govern- torney general, "have the most exment, apparently, is regarded best traordinary ideas of what socialism really is. It is not something to be brought about by act of parliament To enumerate the enterprises in or by vote. It is a growth just as a which the government of the com- boy grows into a man. Socialism will monwealth or of one or more of the come in Australia but by slow growth. Australian states has engaged, would Complete collectivism, when we get be to supply a long catalogue. Pri- that far, will appear the most ordinary, vate contract between employer and natural and inevitable thing in the employe has been abolished as far world for those who live under it. as it affects a minimum wage. Arbi- Many will think it a perfect system tration of industrial differences has and others will object to it, but by all been made compulsory. Collective it will be regarded as perfectly bargaining by labor has been estab- natural. Socialism, which, as I underlished by statute. The trades union stand it, means the substitution of has been given preference. The right | co-operation for competition, will re- the value of the share farming that a of society as a whole to interfere in place individualism gradually but private business has been recognized surely because it is the fittest to sur- farms of New South Wales, and parvive. The belief that socialism can be achieved by any coup, violent or In another direction, the right of peaceful, can only be entertained by the state, representing society as a those who fail utterly to understand whole, to engage in business of any not only what socialism is but what ing the necessary team and implement kind is unquestioned. The railways those factors which make for change arranges with the land owner to crop are nationalized. Excepting a few are. The Lambeth conference com- a certain area for a season or for a miles of private lines run to coal mittee wisely concluded that 'any sys- number of seasons. The usual form mines or factories, all the Australian tem of social reconstruction may be of agreement provides that the land railways are owned and operated by called socialism, which aims at unit- owner shall provide land, seed, twothe state. The same is true of many ing labor and the instruments of la- thirds of the manure, where manure is of the tramcar or street railway sys- bor (land and capital) whether by used, and bags for his share. The



Reaping Oats in Australia

street car system of Sydney, its chief | here; less robust, less complex, less city. If the state of Missouri owned comprehensive, than it will be in the and operated the street car system of years to come, but it is here. Just as St. Louis or the state of Illinois the a boy is less robust than a man, and, street car system of Chicago, the case in the sense that a boy is not a man, would be a parallel one. The tele- socialism is not here now and, in the graph and telephone lines are state- sense that a boy is a man, socialism owned and state operated. The state is here in Australia now." lends money to farmers who wish to buy land or stock farms. It builds houses for workingmen to purchase socialism, "it is our policy," said the on easy terms or rent. It aids miners secretary of the Sydney labor counin prospecting for and developing cil, "to hold what we possess and mineral properties. It gives bounties strive for more. What the Sydney and subsidies to manufacturers. It working people, for example, want operates nurseries which supply trees just now is house room at a moderate and shrubs without cost. It owns and rental and this can be secured only operates irrigation works, brick-mak- by the government building cottages ing plants, abattoirs, meat-freezing wherever the workman may wish. works and engages in many other en- And A. W. Pearse, editor of the Pasterprises ordinarily left to the initia- toral Review, able anti-socialist said cital by a state organist. And the end is not yet.

As to some enterprises in which sions of opinion from persons of widethe Australian state has engaged there | ly divergent political beliefs show the is little or no difference of opinion. existence of socialistic sentiment in The telephone and telegraph service all parties in Australia, Between them are regarded as properly in the hands it is merely a question of degree. of the government. The cheapness of It is a curious paradox that the sothis service, its comprehensiveness called anti-socialists of the liberal teenth and nineteenth Edison dynaand excellence have commended it. party have enacted as much socialis- mos, still running with thier original One may send, for a shilling (24 the legislation, laws directly opposed cents), 16 words by telegraph as far to individualism, as the avowedly so ning every day for 31 years. as from New York to San Francisco, cialistic section of the Labor party while for a penny (2 cents) one may when in control. Names do not talk five minutes through a public telephone from the street corners in concerned as to results. the larger cities within the radius Individual Initiative Lags. of the city, or suburban service. Few would change the telegraph or telephone to private monopoly. Govern-

As to the wisdom of complete na- to the , island-continent. Individual

initiative is not so keen. The average Australian leans against the wall or the fence or the lamp post. In mathematical transfer is the sovern. terial affairs he leans on the government. The chief end of life to him is not business, but the chief end of business is life. Governments are instituted among men, according to his view, not to preserve order and permit individual effort, but to give high rates of wages and establish holidays. There is much idealism in the growing socialism of Australia but more materialism. It aims at larger leisure and greater pleasure.

Play First, Then Work. "Will you describe the Australian as developing under your moderate socialism?" I asked a distinguished colonial author. "In what respect does he differ from his conservative Brit-

ish ancestors?" "I will not do that," was the reply, but I will tell you a story. An Englishman, discussing Australia, told of a young official in his business house who was efficient and ambitious. This official aspired to be the head of the firm one day and allowed no other idea to engage his thoughts. It chanced that he was sent to Sydney, Australia, to a position of responsibility for his firm. He returned after five years. His outlook on life had entirely changed. As regards work he was as efficient, as quick, as reliable. But his chief ideal now was to enjoy life; the headship of the firm took second place to that. He had acquired the Australian viewpoint."

The story illustrates the Australian's attitude toward work and play-play first. And, under even moderate socialism, the tendency among Australians is to let the government do all the work-we'll go play. He seeks socialism in our time The evils of the system have been with the hope and fond expectation anti-socialists insist that with socialmember of parliament and former at- trails, the Australian-commonwealth an untidy neighbor mussing up the manage.

(Copyright, 1914, by Joseph B. Bowles.)

SHARE FARMING IN AUSTRALIA Plan That Seems Worth Copying Is Especially Successful With Big

Wheat Crops.

In view of the fact that the estimate of the present season's wheat crop of New South Wales is set down at nearly forty-two million bushels, exceeding last season's record by nearly nine and one-half million bushels, it is proof of considerable number of the wheat ticularly the large ones, are worked on what is known in Australia as the 'shares" system.

Under this system a farmer possess tems. The state of New South Wales, means of the state or the co-operation farmer does the cultivating and harfor example, owns and operates the of the poor.' Modern socialism is vesting using his own plant; provides one-third of the manure, and bags for

Up to a specified yield of the crop the owner and farmer take equal shares; any excess becomes the property of the farmer as a bonus to encourage good and thorough farming. This method of working large areas is invariably a success where the arrangement is drawn up on a truly cooperative basis, and is one of the most satisfactory ways of working large estates. Share farming enables a settler with little mony at his disposal to accumulate enough means to buy land of his own.

New Yorker Shoots Polar Bear. The shooting of the first polar bear was delegated to Mr. S. Osgood Pell of New York, a privilege of no secondary kind in a party of rather keen sporting appetites. It was midnightthe transparent gauze of a half darkness. A sailor called our attention to a blot of white moving cautiously toward the ship, and in a few minutes the ungraceful bulk of a polar bear was plainly visible, ambling along faster and faster. When within a hundred yards he uttered an angry growl and raced toward us, with the manifest intention of clearing the Neptune and her passengers off the map of the Arctic. Mr. Pell's first shot hit him in the shoulder and tumbled him off the "pan" into the water. He attempted to dive, but rifle after rifle took a line on him and landed four or five shots before he gave up the fight. We lowered a small boat, photographed Mr. Pell and his bear, and brought the first real trophy proudly aboard.-Wide World Magazine.

Gladstone's Persuasive Power. Stafford house was the Garibaldian headquarters in London during the visit of 1864; and a society pleasantry "Oh!" said Abraham Hayward, "we'll

Oldest Power Plant in New York. The oldest isolated power plant in New York City, according to the Engineering News, is that in the Mills Building in Broad street. It was installed in 1883, or only four years after the announcement of Edison's in-'candescent lamp. Here are the fifsteam engines. These have been run

The Way of It.

"So the man you dunned for that money was very angry? Did you manage to placate him?" "No, I tried to, but he got the stran-

A Home-Made Remedy.

He-My dear, see that I am not disthe abatement of the smoke nuisance. She That's easy. Stop using cigar-



MOVE TO ABOLISH FENCES

Pittsburgh Newspaper Regards Idea With Favor, but Has Doubt of Its Practicability.

Baltimore comes forward with a community back yard idea, already the subject of practical experiment in that city, remarks the Pittsburgh Dispatch. It aims to abolish the unsightly back yard and its rubbish-hiding fences, and to create instead a neighborhood open space or park and playground that would keep the children off the streets and offer residents instead of a little cooped-up and practically useless piece of private domain a chance to stretch themselves and enjoy a freedom of movement to be had in no other way.

A correspondent who directs attention to the scheme suggests that it might be expanded into a factor in reducing the cost of living if the community would devote part of the open space to growing fruit or garden

Admirable as the idea may seem in the abstract, it may be questioned whether neighborhood human nature has arrived at the perfection necessary to its success. It is not difficult to imagine a refractory resident angered by some neighbor spoiling the whole plan by restoring his fences. that it will relieve from the worry and It may be doubted, too, whether this work of managing his own affairs. The | could be avoided by any binding agreement being secured in advance. Then, ism in full measure attained in Aus- also, there is always the possibility of and citizen-will have no affairs to community back yard, of clothesline fights and dogs and chickens and all the numerous troubles that add spice if not sweetness to neighborhood ex-

GOOD IN GARDEN MOVEMENT

City of Duluth Has Demonstrated That It is of Value in Many Different Ways.

In the summer of 1913, the Duluth Commercial club obtained three vacant lots in different parts of the city and put a man in charge of the three tracts. He conducted demonstration gardening through the season; was always available to help puzzled gardeners; guided the school chifdren in their work, and otherwise stimulated the garden movement in the city.

From an importer of garden products, Duluth became at least a producer of its own supplies. Duluth's hinterland is developing agriculturally, but the garden movement in the city has lost none of its significance. has promoted the ownership of many homes; it has drawn children from the street and made them garden enthusiasts; it has induced greater efficiency among wage-earners through contentment and more healthful surroundings, and it has made Duluth a city of gardens beautiful to be-

hold. Of greater value to Duluth is the moral effect on the city. The rising generation is one of gardeners. Factory workers and office employes not only raise their own vegetables, but they have developed their bodies by the exercise. The demand for saloons, gambling houses and similar resorts is dying out.

Camphor Trees for Streets.

A trade journal quotes a Texas nurseryman as saying that the camphor tree is very popular for street planting in the southern part of that state: that it is never troubled by insect pests and that mosquitoes will avoid

No tree is exempt from insect pests. and camphor trees may be found with such a thick incrustation of the red scale of the orange that bark on twigs may scarcely be seen. Mosquitoes avoid camphor and its fumes and therefore will not literally "roost" upon the tree, but they do not avoid the general territory in which it grows. The camphor tree is a prime favorite in southern California and we do not allow fear of insect pests to deter us from planting it wherever and whenever opportunity presents .-Los Angeles Times.

Encouragement of Thrift.

In Chicago there has been started an association for the encouragement of thrift. Far-seeing men are behind the movement, confronted with the enormous waste in time, opportunity, and material which has been a natural inheritance from a generation that found everything to spare at hand. This condition no longer exists. A changed economic condition calls for changed methods of living, to which the people must be educated. As the lasting and formative influences are those belonging to childhood, the school garden may be counted upon to play no small part in bringing about a better understanding of the elements of living, all the way from the market basket onward to the best that goes to make happy and prosperous homes.

Does More Harm Than Good. The charity is bad which takes from independence its proper pride and from mendicity its salutary shame .-Southey.

His Own Detective.

In Schenectady, N. Y., a farmer recognized in a leather shop the green hide of a horse which had been stolen from him but two weeks before. By means of the hide he traced the thief and eventually was paid for the horse,

Thing of Most Importance.

"What matters the nature of our work so long as it is well done? We do not glean happiness according to our station in life, but according to how well we adapt ourselves to that

Constant "Discoveries" Revive the Story of Planted Relics to Fool the Emperor.

Barlin-Considerable amusement has been caused here by the daily kainer. bulletins of the archaeological activities of the kaiser at Corfu.

Every time an aucient relic is discovered by the excavators, working of Greece, in a convivial moment last under the emperor's eye, exhaustive year; accounts are circulated in the German

agency.

Roland von Berlin, the society weekly, repeats a story, first published a year or two ago, that the relics are carefully planted at Corfu that they may be discovered by the contest against a class of 16 girls at

Roland quotes a remark, said to have been made at the Potsdam Military Casino by Crown Prince George

"People are busy at Corfu the whole' ter hurl knives at ber.

generally approved by leaders of all parties.

tive of private interests. The Aus- a few minutes afterward: "The state tralian may borrow money from the should assist rural laborers to procure state to buy a farm and stock it with small areas in rural districts, where of the time was a proposal to marry sheep or cattle, he may ship his prod- they can marry and rear families the hero to the old duchess of Sutheruce to the state market over a state close to their daily work. They would land. Sir Mountstuart Grant Duff tells railway, have it slaughtered by state soon lose their socialistic inclina- how some severely practical person

butchers, direct its sale by state tele- tions." And the liberal prime minister objected that this was impossible, begraph, learn the results through a of the commonwealth, Joseph Cook, cause Garibaldi had a wife already. state telephone, as he sits in a state remarked: "The pictures drawn of concert hall listening to an organ re- socialism would be beautiful if it were put up Gladstone to explain her away." not for the black blotches on them. Against that kind of socialism the Low Telegraph and Telephone Rates. liberals are united." These expres-

frighten the Australian. He is rather And what are the results? Generalization is dangerous. Certain results. gle hold first." however, are apparent. The working ment aid to the settlement of land, day of long hours is passing away. to immigration, to the development of

All Parties Bocialistic.

As to the progress toward a larger

There is less work and more play in the "back blocks" or new country is Australia than in any other civilized turbed. I have to write a paper on country. Private capital which finds better returns elsewhere does not rush