hy-er-yes, Miss Quickstep, I have sometimes had a kind of feeling intendents and managers of asylums as if I'd been sort of sent for and couldn't go, you know."

Miss Amanda sighed dreamily, and there was a pause, during which the two sat in the semi-darkness of the Quickstep parlor and exchanged profound silences.

The door opened and Miss Amanda's elderly female relative looked in.

"The book you are looking fer, auntie," said the young lady, with entire self-possession and some emphasis, "is probably in the library."

The elderly female relative withdrew, and Amanda spoke again in the soft, musical, persuasive voice of a trained applicant for charity.

She will not disturb us again, Mr.

"She-she wasn't disturbing me pny." he protested. And he sat and looked helplessly at

the glowing coals in the grate, with the feeling that every breath be drew was a mortifying and ghastly blunder " As you were about to say, Mr. Mc-Pelican." resumed the young lady, "there are times when it seems to all of us we must speak what is in our h- in our minds.

"Yes." vaguely answered the bewildered youth, and he tried to remember when he had started to say any thing of the kind; "yes,o' course.

"And while I am not sure that I ought to listen to you, Mr. McPelican," she said, with downcast eyes, "when you speak to me in this-in this personal manner, yet-The young man could feel his pulse

beating a tattoo on the drums of his ears, but he sat like a bound boy at a forn-husking and said nothing.

"By the way," exclaimed Miss Amanda, presently, "I have a new book of engravings, Mr. McPelican, that I am sure you will enjoy seeing. It is a large book, and you'll have to move your chalt-why, cectainly, you can sit here with me on the sofa. I never thought of that!"

The pictures danced before the eyes of the young man in blurred, confused

"Isn't this engraving of the 'Courtship of Florence Dombey and Walter Gay' perfectly lovely?' "Which is Wait?" he gasped.

"There! Look closer. Don't you see him?" "W-who's he courting?"

"You'll have to come closer, Mr. McPelican. I declare, though," and she looked archly at the trembling youth, "I am almost afraid to let you come any nearer. You look exactly ke Walter in the picture!"

And then the arm of that helpless young man stole in a timid, apologetic, meaking way around the waist of the charming Amanda Quickstep, her head sank on his shoulder, and the book of engravings fell neglected to the floor.

"Alfred." she said, an hour later, as she toyed with a button of his coat, "you bold boy! How on earth did you ever muster up the courage to ask me to be your wife? You know well enough I never gave you a particle of encouragement.'

The young man patted her condescendingly on the head and then spoke proudly, with the voice of an Ajax defying the lightning:

"When I make up my mind to do any thing, Amanda, no obstacle on earth can stop me!"-Chicago Tribune.

ABORIGINAL MONEY.

Queer Articles Which Take the Place of Gold and Silver.

At a meeting of the Academy of Sciences of San Francisco, a number of years since, Mr. Stearns presented a paper upon the money of uncivilized man, in which he remarked that the durability and ease of manipulation of shells have long caused them to be employed in domestic intercourse and trade; and, among these, he first enumerated the common clam of the eastern coast of the United States, the purple portion of which constituted the wampum, or one class of their money. while another was made from the axes of a species of Pyrula. In each shell about half an inch in diameter of the inside is of this purple color, and this was converted into beads, which they called Suckanhock, or black money. and had twice the value of their white money or wampum proper, which was pade of the Metauhock or Pyrula. This was used not only among the Indians, but among the whites; and it is remarked that the solid cash with which the salaries of ministers were formally paid included black and white wampum. The money of the west-coast Indians is a species of tusk-shell, or Dentalium, resembling a hollow elephant's tusk, the worth depending upon the length of the shell. These are strung on corns and worked up in various forms of beaded and other ornaments, having a distinct value ame g the Indians, according to the size in the shell and their number, quite as fixed as that of the specie or the paper money of the United States.

-Tennyson's works are used for school examination papers in India

The use of the money cowry in Africa

is well known, many tons of the shells

being annually imported to Great Brit-

ain, and again exported for barter

with the native tribes. - Christian at

Vork.

LIGHT FOR THE BLING

A Luxury That Cives Great Satisfication to the lumates of Asylums.

You have probably often seen blind asylums brilliantly lighted at night, and you have probably just as often wondered why the blind required such a luxury. An inquisitive reporter recently ascertained that the blind are not deprived of their sight to such an extent as is generally supposed. Superare aware of this fact and know all the wards. The blind are most mischievous at the very time when one would think them to be the least troublesome and order all the gas jets in the insti- £1,400,000. tution to be lighted promptly at sundown. All the tricky ones are then blaze they can not cut up any pranks, ing sustained by native elders. amount of comfort from the light, tarian Christianity. sensible to their optics.

There is one continuous graduation preacher in Wisconsin. from the totally blind to those who can see to read large type. The blind are divided into three classes by those who come robust and well developed, for come in daily contact with them. The the facilities offered for physical trainfirst class is composed of those who can ling are said to be superior to any other not perceive light of the greatest inten- woman's college in the world. The sity. They are devoid of the comfort gymnasium is a three-story structure, which light gives. The highest test to covering 4,000 square feet. It has a prove total lack of vision is to place large swimming pool, bowling alley. the blind person in the direction of walking track, bath rooms and considlightning during a thunder storm, and crable apparatus designed especially if the flash is not perceived this proves for women. that the sense of vision is entirely gone.

ble comfort from it.

tinguish light, but can also partially week of the college year by the maread and discern the features of their jority vote of the students representfriends. This class is by far the most lng the various sporting associations. troublesome. They do not especially care for gas light, sometimes because church sociables pleasant is to give it interferes with their little plans of each person a card on which a dozen mischief. The janitors always make it names are written, and the recipient a point to light the gas in their rooms of the card must talk five minutes to and keep their idle brains out of mis each one whose name is on the card.

son's chief delights. All the lost pow- and new partners be found. This ers of vision are almost compensated scheme is said to be death to wall for by the extraordinary sense of har- flowers and cliques, and of great admony and time. A peculiar musical vantage to the social success of the entalent and gift are apportioned to the tertainment. blind, and secure for them positions of note. Many piano tunors are blind, In Paris nearly all the head piano tuners are blind persons. The same is true in Boston, where all of the pianos in the public schools are tuned by the blind. -Albany (N. Y.) Argus.

TWO HISTORIC CHAIRS.

How a German Officer Obtained Posses-

sion of Them. An incident of General Sheridan's visit to Europe during the Franco-Prussian war is perhaps omitted from sparkling wines of France, and the ance of the facts. When the General ruined. A blight had come upon the reached Berlin he asked the American wine. Some insidious agent that could young American who could speak Ger- and affected it so that it would not man fluently to act as an interpre- keep. The exported wine became acid ter. The Minister recommended Mr. and bitter, and the domestic lost its Charles F. MacLean, better known to flavor and value. The large wine-New Yorkers as a Police Commissioner | makers were in despair and knew that than as an intepreter, and he followed if something was not done their busi-General Sheridan through the cam- ness would come to an end, and this paign. The General relates in Scrib- meant destitution to thousands of hapner's how Bismarck the Great and Na- py French homes that depended upon poleon the Little sat on rude wooden this industry for support. Pasteur atdiscussing the situation, and there is a teriorations in the wines were caused picture showing the two men, one tri- by organic germs, which could be deumphant, the other downcast, in the stroyed by a degree of heat, without peasant's garden. A few days later affecting the quality of the wine. The General Sheridan dined with Bismarck, remedy was applied immediately on a who began to talk of the surrender.

over yesterday and bought those two industry was also paralyzed. It was chairs from the peasant for ten france silk culture. A plague called pebrine apiece; now I have them as memen- attacked the slik-worms, inflicting a toes, and I suppose," he added with a loss of twenty million dollars in one laugh, "the English will go on buying year. Myriads of worms were dethese chairs for years to come."

There was a general laugh at this re mark; but one officer had more to reason to Mr. MacLean afterward.

as Bismarck that the meeting would be historical, so the very next day I rode over myself and got the chairs for five francs for the pair."-N. Y. Sun.

-A few days ago Mr. Davis, of St. Augustine, Fla., heard a bell tinkling, and couldn't tell from what quarter it be killed and the method of doing it, came until he looked in the air and and again saved the commercial prossaw a buzzard with a small brass bei, perity of the French. This investigaaround his neck. He shot the buzzard and on examination saw an indistinc. Pasteur was profoundly abused by men date. "1565," on the ball. He thinks of science, but they all were slienced it must have been hu g there by old

Monendez.

SCHOOL AND CHURCH.

dren in Philadelphia is obliged to wear glasses, and the proportion is rapidly increasing.

-William and Mary College, the alma mater of Presidents Jefferson and Monroe and Chief Justice Marshall, is to be reopened after a long term of inactivity. It is the oldest college in Virginia, and one of the oldest in the Union.

-The following are the endowments little foibles and petty tricks of their of some of the principal educational instatutions of the United States: Girard College, \$19,000,000; Columbia, \$5,-000,000; John Hopkins, \$4,000,000; -that is, in the evening. The supers Harvard, \$3,000,000; Princeton, \$3. intendents in this city understand this 500,000; Lehigh, \$1,800,000; Cornell.

muse under the illumination that it at Leipsie and Gottingen, Germany. He is a man of broad mind, great cult-

new college in Baltimore ought to be-

-The overseers of Harvard College In the second class are those who have decided that a committee for the can perceive and appreciate light and regulation of athletic sports shall herecan see only the barest outline of the after be annually appointed and chosen forms of persons. These are fed with as follows: Three members of the illumination and want it most. Regu- college faculty, and three graduates of larly at sun-down, they seek the chairs the college, these six to be appointed nearest to the light, and draw ineffa- by the corporation with the consent of the overseers, and also three under-The third class can not only dis graduates to be chosen during the first

-An Illinois notion for making At the end of each five minutes a bell Light and music are the blind per sounds and conversation must cease

VICTORIES FOR PASTEUR. The Famous French Physician's Well-Founded Claims to Fame.

It is not generally known in this

country that Pasteur's claim to fame rests upon a more substantial foundation than the discovery of the method of preventing hydrophobia by innoculation. "If it had not been for Pasteur." said a well-known physician who recently met Pasteur in his laboratory, "we would not be drinking the his article in Scribner's through ignor | wine-making industry would have been Minister to recommend to him some not be detected was at work in the wine chairs in front of a cottage near Sedan, tacked the evil. He found that the delarge scale to all the wines which had "That meeting." said the Prussian undergone acid fermentation, and they Chancellor, "will be historical. I sent were made sweet and pure. Another stroyed, and those that were left only turned out a small quantity of silk. Pasteur traced the disease to its origin laugh at than the others, and gave his and found it to be the work of a living organism or parasite. The germ was "You see," he said, "I knew as well picked up by the worm from the leaf on which it fed and speedily got into the sack which contained the material from which the worm spun its cocoon, and increased so rapidly that the worm was killed, or its silk-producing power was destroyed. Pasteur discovered the time when the poisonous germ could tion took many years, during which

1. Tribune.

YELLOWSTONE PARK.

-One out of every five school chil- Some of the Natural Curiosities of That In the Northwest corner of the Ter-

ritory of Wyoming there is a tract more remarkable for natural curiosities than an equal area in any other portion of the globe. It was first brought into notice by a party of surveyors from Helena, M. T., in 1869. In 1870 an expedition, under the direction of the Surveyor-General of that Territory, visited the region, and in 1871 Prof. Hayden, at the head of a scientific corps, made an examination of its remarkable features. This report induced Congress to pass an act, approved March 1, 1872, by which the district now known as the Yellowstone National Park was "reserved -The Presbyterian missionaries in and withdrawn from settlement, octhe City of Mexico have recently lo- supancy or sale under the laws of the watched by the janitors as carefully as cated seven preaching stations in the United States, and dedicated and set Tabby does the mouse. Most of the outlying wards and districts. In this apart as a public park or pleasuring blind have some powers of eyesight, way they touch the people who could ground, for the benefit and enjoyment and light rays, as a rule, can be readily not be brought into any thing known of the people," and was placed under perceived by them. They know that as a church edifice. Lay talent is the exclusive control of the Secretary when all the lights are going at full utilized, one-half of these services be- of the Interior. The limits of this park, as first fixed, have been three and that all the books with heavy -One of the finest organizations of times extended by Congress. Its print, which they can take to bed and women in the country is the "New western boundary now coincides with read far into the night, are taken away York League of Unitarian Women," that between Wyoming and Idaho and from them. These are the principal which was formed to promote closer Montana, and its northern boundary is reasons why the passers-by sees all the fellowship among its members, and identical with that between Montana lights burning in the rooms of the blind for awakening and sustaining a real and Wyoming. The southern boundary asylum. But there is another and interest in religious worship, ethics of the park is the forty-fourth parallel special reason. Guardians of the blind and philanthropy, and of securing co- of latitude, and its eastern line is the state that the latter derive a great operation in the advancement of Uni- meridian of 109 degrees 30 minutes west longitude. It is, therefore, now Many of them can perceive rays, and Rev. Bradford P. Raymond, who about seventy-three miles east and that is the only gratification left to lias just been elected president of Wes- west and nearly ninety miles north their impaired vision. As soon as levan University, has been president and south, and has an area of about night comes on they wait patiently for of Lawrence University. Wisconsin, 6,569 miles. The entire park is more the gas or lamps to be lighted and then for some years. He studied theology than 6,000 feet above the sea. Yellowstone Lake has an altitude of 7,788 feet, and the mountain ranges that Superintendents find it hard to di- ure and much personal magnetism. hem the valley on every side rise to vide the blind into distinct classes, ac As an orator he is impressive, and has the height of 10,000 and 12,000 feet, cording to the degrees of blindness. been considered the most effective and are covered with perpetual snow. Until a comparatively recent period -The young women who attend the in the geological history of the globe, this spot was evidently the scene of remarkable volcanic activity. This is known from the hot springs and geysers that are so numerous here. There are said to be fifty geysers here that threw a column of water to a height of from 50 to 200 feet, and from 5,000 to 10,000 springs. The latter are of two kinds, those depositing lime and those depositing silica. The deposits of these minerals on the borders of the spring form crystals in many beautiful shapes and of many varied colors. The temperature of the lime springs is from 160 to 170 degrees; that of the others rises to 200 degrees and more. Other features of interest in the park are the Grand Canyon of the Yellowstone, where the perpendicular banks of the river, from 200 to 500 yards apart, rise to the height of 1,000 feet. On Tower creek, a branch of the Yellowstone, there is a gloomy canyon ten miles long which is known as the Devil's Den. This creek has, a few yards from its mouth, a fall of 156 feet, on each side of which stands columns of breccia resembling towers. Above the Grand Canyon are the Great Falls of the Yellowstone, 350 feet high. The geographical locality of the park is interesting, as it has within its limits in Yellowstone lake and Madison lake, and in the mountain springs, the sources of great rivers flowing in various directions. On the north are the sources of the Yellowstone; on the west, those of the principal forks of the Missouri; on the southwest and south, those of Snake river, dowing into the Columbia, and through it into the Pacific Ocean, and those of Green river, a branch of the Great Colorado, which empties into the Gulf of California; while on the southeast side are the numerous headwaters of Wind river. The forests of the park abound in deer, elk, bears and mountain sheep. By the latest ordinances of Congress, penalties are fixed for the destruction

of any natural object, the cutting down

of trees or killing game in the park.

A local magistrate lives within the

park to try all cases of violation of

An Extraordinary Incident For four years Mrs. Benjamin Mover, of Souderton. Pa., was totally blind. Not long ago she was taken ill, so that On the fourth day she awoke in the to the bedside and was recognized. Then the other members of the household came in and were recognized. them that she had earnestly prayed fore she died, and this was the answer | nocent people by such a fellow, who to her prayer. Then she said: "This draws a salary for being "funny."is the last day that I shall ever have Peck's Sun, the use of my eyesight." She awoke the next morning as blind as ever, and has been so ever since.-N. Y. Sun.

The Debate Was Postponed.

President (debating club) - Well, we have had, some stirring speeches on the negative side of the question of the evening: "Is Marriage a Failure?" but none of the gentlemen apside have responded.

Secretary (whispering) - Their

wives are here.

when he finally killed the burs."-N. delphia Record. THE NEWSPAPER LIAR.

Humorous Peck Tells How He Got Ir His Work at His Expense.

Almost every daily paper of any pretensions to greatness or enterprise maintains a "hamorist" on its staff, a funny tellow whose business it is to make the readers laugh "ha! ha." The following item was written by one of

those alleged humorists: "Pech, of Pick's San, wan \$4.000 on the clee tor, bu, his consecuted will not permit him to keep it. He proposes to deprine it to needly widows in sums of \$30 each. Every widow it need of cash should not in the claim at once." The laughable item was started the Lord only knows whose, but it is going the rounds, and I am be ginning to get the benefit. Of course if I knew who the fellow was that wrote the item I could kill him, and that would break him of sucking eggs, but he is "incog." He is like the fellow who writes an anonymous letter. One would think such an item could not do any harm. It does no harm to me, except to make my heart bleed about twice a day. The fellow who wrote it probably thought I would receive lots of letters from pretty widows, and that I would have a pienic answering them. The facts are that I never bet a cent on election, and never won a dollar, and while I may occasionally give a little money to the deserving poor, I have no thousands of dollars laid away for the purpose of aiding widows or any other deserving class. I wish the fellow who wrote that item to be cunning could read some of the letters I receive. If he could sit here beside me, I could make him so ashamed of himself that he would answer these letters I am receiving, and acknowledge that he was not only a star liar but a foolish ass. These letters are not from beautiful and "fly' widows, with pearly teeth, red lips, beautiful complexion, soulful eyes, and fat little hands, but they come from old ladies seventy and eighty years of age, who have been left alone, and who are so poor and needy. They never knew any thing about newspaper liars, and take it for granted that the above item is God's truth, and they picture to me their sufferings and poverty and despair in such terms that it makes me feel as though, if I was able, I would support them all in luxury as long as the precious old souls live. They tell me how to send the money, and how much good it will do them this winter. One poor, loving old creature, ignorant of the ways of the wicked world, shivering from insufficient clothing, has bought some underclothes of warm wool from a kind merchant, to be paid for when she gets her twenty dollars from me, and she writes such a glad letter of thanks, and tells me that she believes I must be a perfect image of her dear boy who was so kind to her, but who was killed at Antietam, or at least she from him after that battle, and she to Heaven, and she will pray for me every day. What opinion will the innocent old lady have of me when I tell her the story is all a lie, and what opinion will she have of the liar who pay for those underclothes for luck, any way. Another letter comes from a woman eighty-four years old, who has been a widow for forty years, and supported herself for thirty years knitting socks, until she became paralyzed, and for ten years she has been in a poor-house, bed-ridden. She tells me what she is going to do with her twenty dollars. With ten dollars of it she is going to buy a blanket shawl and some warm underclothing, and some crab apple jelly, and a chicken to make some soup, and a little china concern which is used to pour liquid nourishment into the mouths of those who can not raise their heads. Five dollars of it she is going to use to pay a debt, money she borrowed nine years ago to buy medicine, and with the rest she is going to buy a crutch for a poor girl whose limb is shriveled, and the rest she is going to put under her pillow to be used when she is dead, to paint the poor-house coffin in which she will be buried, and buy a shroud and bouquet of flowers for that occasion. Well, I can see that poor old woman cry when I write her that the

the rules made for its preservation .-Chicago Inter Ocean. she had to stay in bed several days. item is not true. I can see the tears run down her wasted, wrinkled cheek, morning and exclaimed: "My God in | and I wish the fellow that wrote that Heaven, I see!" Her husband rushed item, and thought he was smart, could

see her as I do. But I guess I will send her the blanket shawl, and the china affair, and have the poor-house She pointed out different articles of folks inform her that her coffin shall furniture in the room, told different be painted all right, and that she shall persons what they were wearing, and have a good send-off, with flowers. in many ways proved that she saw. But, O. wouldn't I like to eatch the She asked that all her children and fellow who wrote that smart Aleck lie grandchildren, twenty-five in all, come about me. If he had a heart I could to her bedside, and they did. She told show him some of the results of his work, and make him cry at a mark. that she might see them all once be- How much trouble can be caused in-

Mr. Rambo's Mistake.

To door of Mr. Rambo's office opened and a lady stood irresolutely on the threshold. "Thunder and lightning, Nancy!

Shut the door!" exclaimed Mr. Rambo, glancing hastily up from his account book. "Were you raised in a barn? pointed to speak on the affirmative death on account of your confounded— Do you suppose I want to freeze to I beg your pardon, madam. I thought it was my wife. I was expecting her at the office about this time. Certain-The president (loudly)-Owing to iy, certainly, madam. I'll subscribe the lateness of the hour further de- for the magazine with pleasure. Put bate is postponed. Adjourned .- Phila- me down for two copies."- Chicago Tribune.

FOREIGN GOSSIP.

-It costs the Prince of Wales \$50, 000 a year to keep up his hunting stables.

-Hundreds of English girls are now adopting shorthand for a livelihood. -In Berlin heavy wagons are sot

allowed on certain streets. In Paris

any carload of rattling material must

be fastened till it can't rattle. -The telegraph lines entering the central station at London are all underground. It appears all the more wonderful when it is said there are

1,700 different lines. - Princess Eugene of Sweden has sacrificed her family jewels to build a hospital for eripples upon an island off

-The Queen incurred expenses in her jubilee as well as other people, the cost to her having been £60 000, and the largest payment being in the department of the master of the

-Paris receives 100,000 francs by the will of a citizen who was run over and killed in that city. He bequeathed the money to erect bridges over the streets at the most dangerous points.

-The old Town Hall at Leicester, a curious wooden building, in which Shakespeare is said to have acted, is now occupied as a school of cookery. A pulley still shows where the dropcurtain was.

-Emperor William of Germany is still carrying on his crusade against all things not Teutonie. He has ordered the officers of his army to discard pointed English boots and wide creased trousers. He has also made a change in the royal crown, which he considered too high for his style of beauty.

-The Earl of Onslow, the new Governor of New Zealand, is thirty-five years old, and has never done any thing particular in his life, beyond being a lord-in-waiting to Her Majesty in 1880, and recently serving as Under Secretary for the Colonies and the Board of Trade. His salary as Governor is \$25,000 a year.

-A course of popular scientific lectures has been inaugurated at Victoria Hall, London, to which the price of admission is only one penny. The lectures are designed to benefit the poor, and great pains are taken to make them entertaining as well as instructive. The movement has enlisted the sympathy and co-operation of eminent scientists.

-The project of a maritime ship canal to connect Bristol with the English Channel is being revived in England, and it is said a syndicate is in course of formation with a view to its promotion. The length of the proposed canal will be forty-five miles. The cost of construction is roughly estimated at £70,000 per mile.

-Drink seems to be as prevalent in supposes he was, for she never heard Belgium as anywhere else-perhaps more so. A newspaper published in says I am so good she knows I will go | Flanders states that "the daily consumption of a workingman-not a drunkard-there includes at 5:30 a. m., a 'worm-killer;' at 8 a. m., an 'eyeopener;' at II a. m., a 'whip;' at 2 p. m., a 'digester;' at 5 p. m., a 'soldier,' wrote it to be funny. I think I will and at 7:30 p. m., a finisher." regular yearly expenditure, without counting extras on festive occasions, amount to 219 francs, 800 to 1,200 francs being the usual wages.

ELECTRICAL LIGHT.

How It Affects Flowers, Vegetables and Other Plants.

From time to time, of late years, experiments have been made of the effect of the electrical light on flowers and plants, with results seemingly the same, to wit, feeble efforts of some plants to prolong their periods of bloom into the night and then premature decay. One has only to study their actions, as observed, to conclude that even plants need rest, or, to be more precise, they seem to thrive best under the conditions which nature has imposed-the period of darkness and the period of the light, which is heat as well; or else that the family of plants, as now they are, sprung from these exact conditions, and will not thrive without them. It is the nature of some flowers, as every one knows, to open at one period of light and close at another; of others to open only at night and close before or at the moment when the orb of day tops the horizon. So strictly do some of these follow their unwritten laws that floral clocks have been constructed, so that one may step out into his garden, of a bright day or clear night, and learn the time by the condition of bloom on the floral dial.

Prof. Wollney, of Munich, satisfied by experiment that electrical light will not advance or improve plant growth. recently tried the effect upon them of the current itself. We quote the following, being the means employed and its result:

He "took patches of ground twelve or thirteen feet square, separated by boards penetrating the earth to the depth of a foot. In one case he applied two earth plates and interposed five earth cells; in another he inserted an induction apparatus; and in a third, a plate of copper at one side and a plate of zine at the other side to form a natural battery. Peas, potatoes, carrots, etc., were planted on these and other patches, but the electrcity. whether of high or low potential, seemed to have either no influence or a bad one upon their growth."

Plants being full of sap, and sap a fairly good conductor, every fiber must have been reached, and, so far as the Professor was enabled to perceive, the only effect of the current was to provoke a perturbation on the protoplasus.

- Scientific American