Recent Progress in the Field of Electricity

The proposition goes to congress for ap- stead of absorbing it. proval before work can begin, as the plan center of the city of Keokuk and the city

impassable obstruction. For years a porthree locks through which steamhoats now The head of water behind the dam will

verflow territory above and the basin will bluffs are close to the banks. The cost of attracting each other, the riparian damages from overflow will Suspend them so that they can move

Within the radius of economical power ransmission of forty miles are a score of in Difinols. These twenty cities had a pop-ulation in 1990 of 111.072, and the villages Up to this point the had a population of 17,661.

Outside the forty-mile radius but within the radius of probable power transmission n a few years are several cities, the largest being Hannibal, Mo., fifty-five miles away.

Chean Electric Power. Apart from the street rallway and lighting companies in Buffalo, three groups of customers are being served with power Niagara Falls. One, numbering thirty-six, includes manufacturers who formerly used steam, but deliberately abandoned their old power plants in order to secure the advantages of electricity. A second class includes thirteen companies or firms which were organized to start entirely new enterprises. Finally, there were twenty-four consumers who moved from other places to Ruffalo in order to improve the opportunity which was offered to them there. Altogether, they now use upward of 18.000 horsepower annually, and what is the most significant fact of all is that none of them have gone back again to

Economy is the chief though not the sole consideration in prefering electricity to a combination of a "flat" rate and a "mefluctuates a good deal pays more than one who uses about the same quantity, but whose demand is uniform. A man who occasionally requires 100 horsepower, but used as much as the first one in a month, would get off with \$27 a year. There are than \$35 or \$40 a year, and many manu- of considerable energy was produced withfacturers pay nearly double that amount for it. Twenty-seven dollars is certainly a bargain.-New York Tribune.

Mysteries of E'estricity. A generator is a producer of electricity and a motor is a consumer of the same, ology which confronts a student it may be and it is perhaps one of the most freek- noted that this simple discovery by a play-

HE city of Keckuk, Ia., has an motor may be duplicate machines, iden-ambitious scheme on hand. It is tical in every detail of construction, and proposed to create an electric can be used for either purpose.

power plant second only to Nia- An electric car can be stopped at any gara by harnessing the rapids of point on the road, raised clear of the track, the Mississippi and set its forces to turn and its wheels turned rapidly by any availshafting in Keokuk and adjacent towns and able method. Its motors then become gendevelop 80,000 horse power in electrical cur- erators and will throw a powerful electric current back into the conducting wires in-

Although the technicalities surrounding calls for a dam across the river. The dam electrical industries are appaling to the s to be twenty-two feet high and approxi- average man, the principle of producing erately a mile long, It is to be built at the the current and adapting its energy to the cot of the Des Moines rapids, opposite the various requirements of driving machinery and cars and of creating light is simple. Take a small rod of soft Iron, wind around These rapids have a fall of twenty-four it a number of turns of fine insulated copfeet in twelve miles, and formerly were an per wire and connect the end of the wire to the two plates of any electric battery, age of twelve miles was made by mule- and you have a primitive electric plant. drawn lighters, and twenty years ago the The little rod of iron becomes an electrogovernment spent \$5,000,000 for a canal with magnet and attracts steel or iron as a common horseshoe magnet does. If a secnass. This canal runs along the lows ond rod is prepared in the same way and placed opposite the first the mutual attraction will be strong, but if the wires connecting to the battery he cha ged over twenty-five square miles; but here about the direction of the current is the river runs through a gorge and the changed and the magnets repel instead of

no little in ratio to the cost of construction freely, and arrange to change the current regularly and at the proper times and these rods will alternately attract and repel each other and there is motion and cities, seven in fown, three in Missouri and power in an infinitesimal degree. Techniten in Illinois; and two-score villages, nine cally, it is a power plant, consisting of a in Iowa, seven in Missouri and twenty-four chemical generator connected to an alter-

Up to this point the greatest scientist knows no more about the causes of this motion than any man who is able to read these lines. Why the chemical bath produces the electric current, what the current is and how it instantly transforms the iron into a magnet are mysteries which not even a Faraday, an Edison or a Thomson attempt to explain.

For many years efforts were made to obtain motion and power in the above man-ner which would be of practical use. Electro-magnets of large size were arranged in groups similarly to the spokes of a wheel, to revolve rapidly past each other; but the large consumption of expensive chemicals in the batteries, with a correspondingly insignificant result in power, gave no encouragement from a commercial point of view, and it was not Auntil the discovery that the battery could be entirely eliminated that the possibilities of electricity as a factor in the great industrial world

Some time in the 60s Prof. Henry gave his little son, for a plaything, one of these experimental electro-magnetic machines which had been discarded as useless. No battery or chemicals accompanied the gift, this, he reached out for other worlds, and surreptitiously securing a galvanometer. one of the little instruments used by the professor for measuring current, he hooked on the wires in the way he had seen his does not average over 50, would be obliged ing. While he was engaged the professor father attach them and continued his twirlto pay \$36 a year per horsepower. An- arrived and, glancing at the galvanometer, other, whose maximum requirements never was astonished to see indications of an rose above 50 horsepower, but who really electric current. Taking a hand in the twirling, he found unmistakable evidence that by rapidly revolving the e magnets few places where steam power costs less in front of each other an electric cur ent out the agency of any electric baltery. The true generator had been found, and the dawn of the electrical age, with all its marvelous wealth of scientific and commercial exploitation and success, opened.

As an instance of the scientific phraseish traits about the most freakish potential ful boy is diagnosed by Faraday as the law Head of Scottish Rite Masonry In Nebraska



GUSTAVE ANDERSON-Thirty-Third Degree.

magnetic field, is directly proportional to is shown by the fact that in Cleveland in cient methods of winding the magnets and the rate of change of inter-linkages of 1884, without waiting to build new machines, designing the machines to produce the

These early generators were called dyna- power were before a wondering world. mos and were used exclusively to produce made that if a duplicate generator sponding rotation was obtained. The cur- 1,200 horsepower railroad motors. rent generated in the first machine went. The details of the larger machines are

steam power. The charge for current is so the little chap amused himself by twiria combination of a "flat" rate and a "meing the contrivance by hand. Tiring of of electro-magnetic induction—that "the over the wire to the second machine and most complex, and the highest type of managers of the Lewis and Clark exposito the decipion The evidence had been electrical pressure generated in a coll of operated it. This was another surprise. scientific and mathematical knowledge has tion at Portland, Ore., have tried in vain come to a decision. The evidence had been wire, by relative motion between it and a. That its value was instantly appropriated been engaged in determining the most efficiency and the decision are quickly appropriated been engaged in determining the most efficiency and the decision are quickly appropriated been engaged in determining the most efficiency and the decision are quickly appropriated been engaged in determining the most efficiency and the decision are quickly appropriated been engaged in determining the most efficiency and the decision are quickly appropriated been engaged in determining the most efficiency and the decision are quickly appropriated been engaged in determining the most efficiency and the decision are quickly appropriated been engaged in determining the most efficiency and the decision are quickly appropriated been engaged in determining the most efficiency and the decision are quickly appropriated been engaged in determining the most efficiency and the decision are quickly appropriated been engaged in the decision are quickly appropriated and the decision are qu

a steam engine, gave an amount of current wire was strung along the track and the sirable. which no instrument then in use could first electric car was commercially introduced, and electric traction and electric are lights. A few years later the discovery magnet passing rapidly before another are They can evoke the giant, can direct its truth is, that the original John Jacob lost built all electric light dynamos, great power

two Brush arc fight dynamos which had quality and quantity of current required. "So," as Mr. Dooley says, "there yes done service for several years were ob- For lighting purposes a current of moderate tained. One was connected to an engine in flow but very high intensity, or voltage, is Crude and clumsy apparatus was quickly a convenient building, the other was at-needed; for power purposes a current of designed and built, and, on being belted to tached to the axle of an old horse car. A ample flow but of moderate intensity is de-

Electrical engineers are meeting all these shades of requirements with marvelous skill and ingenuity, but underlying it all is lumbia river region, would arouse the Upon this simple principle of one electro- the mystery of the nature of the current. energy into a hundred channels, can conwas carried to any desired distance and generators and motors of every descrip- trol it with masterpieces of scientific and he got out of it was to have the town of connected by wires to the first a corre- tion, from the tiny fan motor to the great mechanical achievement, can destroy it. Astoria named after him. And that does Now amen is a word of two syllables, so But what it is remains unsolved. It is still not arouse the Astor family's enthusiasm. the great unknown!-New York Press.

Gossip and Stories About Prominent People

select master the same year. He was me sway his decision the opposite way." knighted in Mount Calvary commandery No. 1 in 1876 and consecrated to the Order of High Priesthood in 1890. He has filled many places of trust and honor in the fraternity, having served as muster of his lodge, high priest of his chapter and eminent commander for three terms of his commandery. He received the Scottish Rite degree up to and including the thirty-second degree from Illustrious Potentate Albert Pike. He was coroneted an inspector general honorary in 1897 and crowned an active member of the supreme council in 1899. He held for many years the office of treasurer of the Scottish Rite bodies of Omaha. He is a member of the Nebraska Masonic Veterans' association and grand representative of several grand jurisdicitions near the grand Masonic bodies of Nebraska. Brother Anderson procured the charter for and instituted Tangier Temple, A. A. O. N. M. S., and was its first and second potentale. On December 14, 1904, he was elected grand master of the grand council of Royal Select

Vanity of a King.

leg was painted from a model with hand- divulge what had taken place in the jurysome limbs. When the king saw the pic-ture again he was delighted. The firm, lieved that with the death of Mr. Davis the graceful line of the calf, curving so ele- last chance that the proceedings of the jury gantly in white silk hose, stirred the royal imagination. He insisted that both legs should be shown. This, of course, necess'tated a more se lus change in the arrangement of the robe, the key of the whole scheme of color, and therefore a modification of the general tone of the

The Aster and Oregon. Astor family in the show. They have re- reached that Mr. Choate was perfectly peatedly written to John Jacob in New dumbfounded to hear their verdict, which able. The Oregon people vainly imagined the knowledge of the Almighty it is the that the part the original old-time Astor finding of a petit jury." played in the fur trade of the northwest, and later in the colonization of the Cofamily pride in the coming exposition. The \$4.0.0.000 on his Oregon venture, and all

Reminiscence of Ben Butler. the members of the Boston Episcopaliah at for it. Strange to say, nobody ever

was born in Sweden September 29, was on his way to Boston to try a case 1842. He was educated in the before Judge Shaw. A young friend met non schools there and grad- him on the train and he asked if he might uated from the Royal Agricul- look at the notes on the case. Butler tural college of his native country. On acquiesced, The young man, to his astonishcoming to America he located at Omaha ment, saw written in pencil at the top and has resided here since. He was ad- of the first page: "Insult the judge." "You mitted to the practice of law in 1875 and see," said Butler, "I first get Judge Shaw's was appointed United States commissioner ill will by insulting him in some way, the same year, which position he still holds. Later in the case he will have decisions He was elected judge of the city court in to make for or against me. As he is an 1877 and held the office for seven years. He exceedingly just man and as I have inwas made a Mason in 1829 and exalted to sulted him, he will lean to my side, for the Royal Arch degree in 1876 and royal and fear of letting his personal feeling against

Baby of the Tribe.

Sir John Richard Robinson in his "Fifty Years of Fleet Street" tells of an amusing incident during the visit of the Swazi deputation from the Transvasi to England at the close of 1894. "The Swazi braves went to Windsor and had an audience of her majesty Queen Victoria. They were very graciously received. One of their number began to speak, and an interpreter followed him phrase by phrase. 'We come, Oh great mother," he said, "to bring to you our babe. Take him. Oh mother, to thy knees; fold him to thy breast.' Here the queen, half frightened, exclaimed, 'But where is the child? I don't see him. Where is he? 'Here, Oh mother,' said the Swant, gravely, at the same time bringing forward a big black about six feet high and weighing well over 200 pounds. 'He is here,' "

Last of a Famous Jury. The Beecher-Tilton trial is recalled by the death a day or two ago of William H. and Super Excellent masters of Nebraska. Davis, the last of the twelve men who made up the jury which sat in the trial. In all the time which has elapsed since the Edwin E. A. Abbey has almost finished Beecher trial Mr. Davis, according to the his picture of the gorgeous coronation statement of his relatives, has never told scene in Westminster abbey. The final how he voted on the jury, nor expressed an strokes were deferred in a curious way, opinion in regard to the guilt or innocence King Edward had seen the great canvas of Mr. Beecher. After the jury returned to and was much pleased. About that time the courtroom and reported a disagreea courtier whispered in the royal car that ment it was discharged. The individual the coronation robe hid the royal legs members were asked for expressions of from view. His majesty, who is very opinion in regard to the case. None of the

human, bit at the balt and Mr. Abbey was twelve men would consent to say anything asked to readjust the robe in such a way and it was learned that before the verdict as to reveal one of his majesty's legs. The was brought in all had agreed never to would become known has vanished.

> Surpassing Knowledge. When Joseph H. Choafe, present ambas-

sador to Great Britain, was a young man and during his early legal experience he was engaged as counsel for the defense in a case where affairs seemel very onesided, his being the right side. The jury The interesting fact comes out that the of good men and true at the conclusion of York and to William Waldorf in London, was against him. "Well," said he, turnbut have received no answers. The Astors ing to his client, "this proves it. If there are dumb and their pockets are unassail- be anything in the world which surpasses

The Lost Chord.

Sir Arthur Sullivan was at one time greatly worried about what appeared to him to be bad inconsistency in "The Lost Chord." Sir John Robinson tells the story: "The words are: "I struck one chord of music like the sound of a great amen." that there must have been two chords. He did not notice this, he said, until after the song had been sung in public and he Bishop McVicker of Rhodo Island told was terribly afraid he would get laughed club at their dinner the other night one seemed to have found it out."

People Who Draw Large Salaries

T IS estimated that there are fully Rock Island, who recently retired. There of millionaires from investments or the Ohio, when one day he was requested by earnings of those in business for themselves, but only those persons who are working on regular stipulated salaries.

Neither does the list include the income of lawyers, although there are a number -like Francis Lynde Stetson, for instancewho receive regular annual recainers of \$50,-000. Mr. Stetson receives a retainer of \$50,-000 a year from J. P. Morgan & Co. simply for the privilege of calling on him first in any legal matters in which the firm may be interested. This sum does not, of course, represent anything like the entire annual income of Mr. Stetson. The income of corporation lawyers varies

a great deal from year to year. The largest single fee ever paid a lawyer for conductng a single case is believed to have been received by William Nelson Cromwell for his work in connection with the Panama canal. He is said to have been paid a fee of \$2,000,000 for his work in that connection. James B. Dill is said to have received a fee of \$1,000,000 for settling the suit between Andrew Carnegie and H. C. Frick. W. D. Guthrie is also understood to have received a fee of \$1,000,000 for breaking the will of the late Henry Bradley Plant. These are believed to be the largest single fees ever paid lawyers in this country.

The largest salary paid any bank prestdent in New York is understood to be \$50,- that Mr. Schwab had performed as prosi-600. The presidents of several of the large dent were turned over to various commit-Wall street banks and trust companies are tees after his resignation. In addition to his known to receive this salary. There is also salary of \$75,000 William E. Corey makes one bank president in Chicago who receives a commission on the volume of the business a salary of \$50,000 a year. As a rule, how- of the company. In this way his income ever, the presidents of the large Wall street banks are wealthy, and their salaries form only a small part of their annual income.

Men of aufficient ability to gain the controlling position in prominent Wall street banks are sought for as directors in trust companies and other financial institutions, to say nothing of the number of reorganization committees on which they are asked to serve. James Stillman, the president of the National City bank, is a director in more than forty different corporations. All of these positions pay well and take up but little time, being in most instances of an advisory nature, and without onerous duties. In this way the annual incomes of the presidents of the prominent Wall street onnks are largely increased.

dent in the United States is \$75,000. There company that make as much as \$50,000 a derstood to draw this salary—A. J. Cassatt companies pay equally as liberal salaries, of the Pennsylvania, James J. Hill of the the head officials of all of the large com-

a thousand persons in this coun- are quite a number of other railroad presitry who draw lorg r sal ries than dents who draw annual salaries of \$50,000. the president of the United 8 ates. Three years ago F. D. Underwood was This does not include the incomes the general manager of the Baltimore & James J. Hill to make an examination of the Erie railroad and report on the possibilities of the system. After Mr. Underwood had made the examination he one day received a message from J. P. Morgan asking him to call at his office. Mr. Mor-

> result of his inspection of the Erie. Mr. Underwod replied that with free sway he could save 30 per cent of the cost of operating the company, and put it on a par with the other trunk lines. He said that it would take the hardest work of his life, and that he would stake his reputation on it for \$50,000 a year. His terms were accepted.

In the matter of salaries the larger in dustrial corporations appear to be more liberal than the railroads. S. C. T. Dodd, the general solicitor of the Standard Oil company, probably receives as large a salary as any other person in this country. He is said to draw a salary of \$250,000 a year. When Charles M. Schwab was president of the United States Steel corporation he drew an annual salary of \$100,000. When Mr. Schwab resigned the salary of the president of the steel corporation was reduced to \$75,000 a year. This reduction was made because of that fact that many of the dutter probably averages over \$100,000 a year.

The late S. R. Callaway, who was the president of the American Locomotive company, was said to have drawn a salary of \$100,000 a year. To accept that position Mr. Callaway resigned the position of president of the New York Central. Henry O. Havemeyer, president of the American Sugar Refining company, is understood to draw a calary of \$100,000 a year. C. A. Colvin of the General Electric company is understood to draw a salary of \$75,000 a year.

The head officials of the more important life insurance companies receive large salaries. President McCall of the New York Life Insurance company is said to draw a malary of \$150,000 a year. There are said The largest salary paid any railroad prest, to be at least five other officials of the are at least three presidents who are un- year. The other prominent life insurance Great Northern and L. F. Lorse of the panies receiving as much as \$100,000 a year.

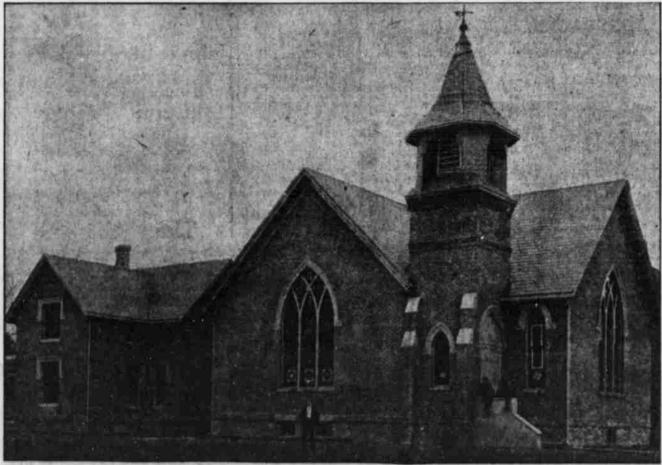
Newly Dedicated German Luthern Church HE new Salem church of the Ger- The new church also means a new con- been pastor of the south side church for man Evangelical association was gregation. It will be the union of the almost two years, will become the head

gan asked him what he had found as the ings. A. Brauchle of Fremont, presiding elder, was also in attendance,

house of worship at Eighteenth street, and of the burned Zion church on just south of the new church. from out of town lent their services to the the church. The north side church was an to gather this money, but by New Year's glad occasion. Among these was President offshoot of Immanuel church, however, the building will be debt free. The con-Kiekhoefer of the Northwestern college and the latter was the original body of ference helped toward the work and the of the Evangelical association at Napier- the church in Omaha. It was founded Sunday collection was more than \$200. The ville, Ill. He came here for the occasion about fifteen years ago and now has a new church and parsonage are of brick. and preached the dedicatory sermon in the story and a half frame and brick church. The church seats 200 and has a class room morning. During the afternoon he cele- But the congregation was not very strong at the west, which connects with it by brated the communion service. Rev. Mr. and the building was a long way south rolling partitions. It is not quite finished Scheurer, pastor of the German Evangel- for the members of the burned church, so inside, but will be shortly so with hard ical church in Council Bluffs, preached the it was decided to put up a new building wood. The ceiling will be of plaster and evening sermon. The local pastor, Rev. about midway between the old houses of

dedicated with considerable cere- people of Immanuel church of the associa- of the united congregation. He will move mony Sunday. The new brick tion located at Twenty-sixth and Marcy in a few days to the new pasonage built and Cuming streets was filled with the Sprague street. The latter congregation The church and parsonage together repmembers of the new congregation and lost its building about two years ago by resent an outlay of something more than their friends and several prominent men lightning, which caused a fire that ruined \$12,000. It has meant considerable work

the walls will be frescoed. The parsonage is an eight-room house, fitted with modern The new congregation will be at least conveniences. John Harte was the consixty strong. Hev. Mr. Jannen, who has tractor and work was begun last August.



SALEM CHURCH AND PARSONAGE OF THE GERMAN EVANGEL AL CONFERENCE, DEDICATED LAST SUN-DAY.-Photo by a Staff Artis.

Some Quaint Features of Current Life

Definition of a Lady. LONDON cabman had brought paying the legal fare, and his defails of the wedding." constant remark was, "She ain't do, yer honor. Last week a lady gave me scrap." a sov'rin instead of a shillin', and I called 'Beg pardon, madam, I've got a sov'rin get drunk with it? That's wot I cails a

A Case of Conscience. Twelve years ago Luiu Burdette of Kansas City, then a little girl, now a married woman, lost 5 cents while playing at the village school. The other day she received a letter from a woman now of California, but formerly a Kansas playmate, which was to this effect: "You will find enclosed 25 cents. You lost 5 cents at school one time. I found and kept it. When you told me that some one saw me find it, I denied it. This was a long time ago, and I had covered it all up, but God arrested and troubled me on account of the

Pluck of an Injured Man.

in two places. After vainly yelling for help Scranton. until he nearly perished with the cold he crawled to the horses, drove them alongthen to the back of one of his horses and securing the services of a surgeon.

A Japanese Sign. The following hotics was posted up recently in an art exhibition in Tokio, "No visitor who is mad or intoxicated is allowed to enter in; if any person found in shall be claimed to retire. No visitor is allowed to carry in with himself any parcel, umbrella, stick, and the like kind, except his purse, and is strictly forbidden to take within himself dog, or the same kind of beasts. Visitor is requested to take care of himself from thievely."

Not a Scrap Left.

as well. The bride's mother met him. "Good morning, Mrs. Jones," said the suit against a woman for not editor. "I have called to get some of the

"Goodness!" replied Mrs. Jones, in disa lady." "Do you know a lady may, "They're all gone. You ought to when you see one?" asked the judge. "I have come last night. They are every

Swindler Ducked by Girls. A stranger giving his name as Charles B. instead of a shillin', and she shouts back: Moyer collected \$2 each from about twenty Well, you old fool keep the change and poor girls at Washington, N. J., by representing himself as an agent for a company manufacturing silk flowers. He

offered the girls employment by which they could make \$5 a week, but made them pay him \$2 for an outfit, which would be sent to them later. Moyer went from Washington to Oxford and worked there for several days. Anna and Teresa Flanagan, two of his victima, met Moyer on the street and demanded a return of their money. Moyer laughed. The girls are robust, and they grasped

where stood an empty freight car. They locked Moyer in and then went for help. In a little while a dozen girls marched in a body to the car, opened it and pulled Moyer out. He was helpless from drink, and the girls resolved to sober him up. Joseph Maurer, a plucky resident of Canal This they did by plunging him two or three township, Venango county, Pa., while driv- times into the ley waters of the near by

Moyer and pulled him to a railroad switch,

ing his horse team hitched to a log of wood creek. He emerged after the girls left him was struck by the log, breaking his leg and took the first northbound train for Girl's Name Protected. The supreme court of Louisina has supside of a stump, pulled himself with his pressed the name of the woman who is broken leg to the top of the stump and plaintiff in a slander suit, and the general

public will never know who the woman is. in this way succeeded in getting home and In a decision handed down the judgment against Harry Hart of Shreveport, to pay a fine of \$1,000 and to serve two years of hard work on the public roads of the state, has just been confirmed by the Louisiana. supreme court. By whom the complaint was brought no one knows, with the excep-

tion of Hart and the trial court. Everywhere in the records a woman's name appears as Miss ---, whoever she is, and it is generally supposed that she is a society girl of Shreveport, La. She charged that Hart sent an insulting note to her, In the law courts she appeared heavily veiled and her identity has never become

The laws of Louisiana give the presiding The editor of a flourishing journal in a judge of any court the right to exclude the California town recently called at the name of a party who would be injured still "home of the bride's parents" the day after more by the publication of his or her name. wedding. He was destrous of telling This is the first instance in recent years in his readers all about the event and wished which this right of the injured party has to give the young couple a good "send-off" peen used.