## THE SCRANTON TRIBUNE --- SATURDAY MORNING, MARCH 20, 1897.

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training high schools, are supported in the same convenient fashion. The

RAILBOAD COMPANY

TOURS

equally in all directions, like the rip- as light, says that we know of vibraples on water when a stone is dropped tions reaching a frequency of 1,875 trilin. Some of the energy flung off sidelions a second, and asks how much ways from the conductor never returns. further we may go. Then comes the This electro-magnetic radiance, which profoundly absorbing question: What is an entirely distinct this & from what goes on in the wire its: ., or at its ends, are now, or may some time, be, conwas made the subject of investigation scious, are represented by the by the late Henrich Hertz, of Bonn. The brilliant results of his work proscale of etheric vibration? voked unbounded delight among phy DOES IT EXPLAIN TELEPATHY?

proceed outwardly from the conductor still treating the waves thus registered

sicians, and lent peculiar bitterness to Of late years much has been heard the grief to which his early death gave of "telepathy," "thought transference" rise and kindred interchanges of feeling

says:

say them

to save them?

remarked:

Here is a curious discrepancy in the accounts of Hertz's work. In some places he is represented as experimenting with currents having 100,000,000 alternations per second, while elsewhere he is said to have devised apparatus which gave him 500,000,000 waves a second. The number, however, is immaterial for present purposes. The great discovery which he made was that he could retract these waves by a strai tht lines through any kind of matpeculiar prism, could reflect them and make them exhibit what are called the "interference" and "polarization" phenomena of light. He also discovered that these waves or rays travelled with the velocity of light. His conclusions have been generally received by the leading scientific authorities of the day.

## HERTZ'S EXPERIMENTS.

Now, Hertz would set up exceedingly rapid surgings of current in one metallic conductor and then place a second conductor at a distance from it in what was found to be an advantageous posi-The magnetic waves thrown off laterally from the primary conductor through space would be caught by the secondary, and could be made to manifest themselves in various ways. The highest success was obtained, however, when the secondary was "tuned" so as to respond; that is to say, it was especfally designed to vibrate more naturally at the same rate as the radiance from the primary wire than at any other frequency.

When Marconi's experiments were first reported, it was said that his waves were the same as those with which the name of the great Bonn investigator is so closely associated. He may have believed it himself at first. And it was supposed, therefore, that his receiver was a tuned "resonator" of the Hertz pattern. But the interesting interview which McClure's Magazine now prints indicates that a different kind of radiance is involved. For instance, he says that in future he will abandon the use of the parabolic mirror hitherto employed to focus the rays as a searchlight does. He is now satisfied that it would be of no value. Nor, at present, does he know of any kind of lens that would perform the office of concentration. He evinces hope that invention may yet find a way to stop progress in all other directions and compel the waves all to go in one-a highly desirable consummation in practical telegraphy. But thus rays do not seem to be susfar. ceptible of reflection or refraction. like light and the Hertzian waves. Moreover, Marconi says that the radiance which he employs hus a higher pene-

trative power than that of Hertz. He reply. The clergyman sat down and ven-tured no further interruption."-Chicago believes that it will go through anything and everything. The rate of alternation he used was 250,000,000 per but he experimented with second. The lady was making some remark about the kind of clothes some other inwaves of different lengths, from thirty metres (or 100 feet) down to ten inches. dies at church had on, when her husband

## WHAT MACARONI HAS DONE.

The finest garment a woman can wear Now, what has Macaroni actually done thus far? Well, with a very mod-est battery (of eight vots and three am-

people of New York for the services of other phenomena, of which we mortals their illustrious fellow citizen. GOTHAM CHOSEN. known regions here hinted at, in the General Grant was a citizen of New York when disease laid a heavy hand

authority in electrical science.

be brain waves, but whether they be

capable of accounting for the pheno-

mena of telepathy. I still see no rea-

son to change my opinion as to the

NO FURTHER INTERRUPTION.

Says the Rev. Dr. F. W. Gunsaulus:

I heard Wendell Phillips make an anti-

the saddle bofore him and we rode

slavery speech once. I was then a hoy of 6 years. My father took me up, put

eight miles into Philadelphia to hear that

speech. My father was determined that I should not lose that opportunity of see-

ing and hearing the great orator. I re-member the occasion as distinctly as though it were but yesterday. The hall

was densely crowded and there was great excitement. Wendell Phillips made a ter-

rific arraignment of slavery and the slave-holder. In the midst of it a clergy-man of distinguished bearing arose among

the auditors and addressing Phillips said

'Sir, if you really believe these things you

are saying, why don't you go south and

"The stillness that followed this perti-

The schness that followed this perti-nent question was so profound as to be actually felt. The vast audience held its breath for Phillips to answer that ques-tion, which meant much just then. Phil-lies research to the scheme for the scheme for

lips was equal to the occasion. With an unmoved countenance, but in a stern voice, so clear as to be heard in every

part of that large hall, he answered: "'And you, sir-you profess to save

"There was no reply-there could be no

Household Repartee.

"'And you, sir-you profess to save souls from hell-why don't you go to hell

possibility of this action."

upon him, but still, when the news came from Mount McGregor on July 23, passed away, many municipalities and idea by a mysterious process. Are

igner

object was accomplished; for as

please the eye and inspire those who

look upon it with awe and reverence it

will symbolize the appreciation of the

asked that his body be intrusted to these genuine experiences? And are their care and that they might erect a they explained by ether waves at highsepulchre of fitting magnitude. Washer frequency than any yet known? Mr. ington was first in line. There Grant had stood by the side of Lincoln to re-Crookes believes both of these propositions credible, although not yet demonview his victorious troops-there he strated. The vibrations might be rehad looked upon them as they tramped garded as not susceptible to either redown the board avenue thousands fraction or reflection, and traveling in upon thousands, bronzed and burned by Its Wonderful Growth Under the the southern sun, yet bearing aloft with ter Ath ease. The hypothesis is in pride the bullet-riddled battle flags volved in more than one difficulty, and which they had carried to victory. a vast amount of research is yet nec-There, in Washington, he had acted as essary to its confirmation. In this consecretary of war at a critical period in nection the following passage, from a the life of the nation, and there he had note to the Electrical Engineer, relarounded off his remarkable career as tive to Mr. Crookes's ideas, may properly be quoted, with the prefatory represident. West Point, where he had mark that the author is a well known

received his education, and where the eeds were sown which in later years He bore fruit in his greatness, advanced a claim for the mortal remains, which "It is very improbable, as I pointed many thought should have been laid out long ago, that brain action is unnear the historic academy, Chicago, accompanied by wave disturbances in the ether. It is only a question as to where the general had hosts of friends. wanted the honor of housing all that their intensity and capability of awakwas earthly of Grant, and St. Louis ening thought in a recipient brain. This, as I understand it, is the real and Galena felt that they also had rights in the matter. question at issue; not whether there

But the city of New York offered the site of the river front, the family thought well of it, accepted the proposition, and ten days after the end had come in the little mountain cottage amid strains of muffled martial music

between miles of dense masses of sl lent mourners the body of General Grant was borne to the temporary tomb near the spot where the monu-

ment now stands. COLLECTING FUNDS.

A committee was organized to raise funds for the purpose of placing a suit able monument on the site, and in the course of a few years about \$150,000 was subscribed, but then, possibly because the proper methods were not employed, subscriptions ceased, and in 1892 some people expressed doubts as to the possibility of raising the sum necessary to erect a structure on the scale originally contemplated. About this time, at the request of the various military bodies of which he was a member, and because of his having been a member of General Grant's staff, General Horace Porter was chosen chairman of the Grant Monument committee, and within sixty days, under his energetic and welldirected work, the fund had grown to

sured fact.

\$600,000 and the monument was an as-

blessed man;

leaviest draught.

The Millenniam.

to become parts of trunk lines.

ing the past year-the first of deep

increased 60 per cent. he rallroad fa-

progress of the city along other lines.

and three trunk systems here find an

running into the island city promise

water-the export business of the

When sermons are ten minutes long and can, and the original designs have been never stale or flat: When congregations rise and pay before

only slightly modified or changed. they noss the bat: careful study had been made of al When sliver jingles everywhere and banks similar buildings, with a view to avoidgo not to smash; ing their shortcomings. The work When the bill collectors are to spare and

ing their shortcomings. The work proceeded steadily, the officers of the committee gave much of their time to the cause, although not one cent of the fund was paid either for rent or clerk when there are fifty offices to every tire, and it is believed that much of Then will the great millennium dawn brightly, but alas! the actual work on the monument has been done for less than cost.

Although the monument in fis present condition one as beautiful and

Plans had been made by J. H. Dun

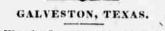
ed to be The govern capital such a gigantic scale will be r long as the monument shall stand to nors of many of the states will come alized. with their military staffs, and it is ex-What is necessary to build here and pected that the entire National Guard there, on the high points of the earth. of the state of New York will be mobiltall towers and put into the tops of ized for the occasion, and will act as these towers machines to gather and focus these waves, just as the mirror

escort to the Grand Army of the Republic, Loyal Legion and other patriotic organizations. A member of the committee, in

commander, General Schofield, and the

highest officers in the navy, have also

speaking of the proposed parade, said: 'It is too early to make an estimate as to numbers, but it is safe to say 1885, that the victor had been van- that the occasion will bring together quished and that the sturdy soldier had a body of men such as has never been marshalled in New York, and, with the possible exception of the ceremonies in France, when the First Napoleon was brought from St. Helenn, there has een nothing to equal it in modern times.'



Galveston is likely to long continue

Stimulus of Harbor Improvements. Writing in the Pittston Gazette of a ecent trip to exas and the south. Hon. heodore Hart says: he writer found

much in Galveston that specially interested him, in noting the marvelous | had its origin in the way the telegraph changes since he first visited the city a quarter of a century ago. While the population had increased from 15,000 to 60,000, the growth in other directions was even more marked, betokening the laying of strong foundations for greater future.

tall enough and with machines big enough, he could send a message from New York to London without a wire but for transmitting electric energy for running machinery at this distance it would require a series of towers. But there will never be any necessity for running machinery at that long distance from the source of energy. It is over long distances that we want to tel-

raised by direct taxation would be \$9. 277,000, and the tax rate would be \$1.40 instead of \$1.55. egraph, With such a station at New York not only could we talk to Eu-Glasgow, too, has a cheap city govrope without wires, but every ship on the Atlantic could communicate with

cars in Sydney. This is no longer spec

ulation, but science, and with time and

gathers and focuses the sunbeams. Mr

Tesla said to me that, with a tower

ernment and a hight death rate be cause the population is crowded. Philaus, and assistance could be rendered to any one of them in distress. The seas delphia has a dear city government be would be robbed of over half their tercause its population is spread out, and rors. But this means of communication for this reason a low death rate. Glaswould render it impossible for a few gow has a death rate-1893-of persons to conceal important informa-Philadelphia had in 1893 a rate of 21.20. tion long enough to take advantage of Yet Philadelphia, with a summer tem the public. Every financial panic has perature whose extreme is some 25 degrees higher than Glasgow's and or cable news has been conceated, bu whose winter is 10 to 15 degrees lower. a tall tower flashing its messages or has a much more unhealthy climate the city would protect the public and Giasgow has a July as cool as Canada would immensely help nations to read and a January as warm as southern fly understand each other in an inter-North Carolina, Philadelphia, with national crisis threatening war. . its winter and summer, should have the higher death rate. It is also the larger

LIGHT AND SOUND.

It is now known that light is sound the principal seaport of Texas. It is already the fifth exporting city in the carried to a point of vibration beyond hearing. There are scientists, United States and claims to be the third richest, according to population. among them Mr. Tesla, who believe that the two terms may be convertible There was no railway line connecting Texas with the other states twenty--that is to say, that we might take : five years ago, and the Mallory steamsunbeam and so graduate it down as ship line was the popular route for to hear something of the terrific storm: that are constantly sweeping over that passenger traffic between New ork and Galveston. These vessels, in passing luminary. So it may not be impossible to attach the telephone and phonograph over the bars that then obstructed the to these waves that may be madgulf entrance to Galveston harbor. which is a bay between the Island and blink around the globe as the winking diamonds in the girdle of a woman' the mainland, would frequently drag waist. If we ever talk and sing acros on the bottom, as there was only from the wide seas this is possibly the only nine to twelve feet of water in the way, for it should be understood that channel at high tide, he etties conwires can be distributed from these high structed by the federal government at a cost of some \$7,000.000, have wonderstations into every house. fuljly improved the channel. A year

Mr. Tesla has gone so far as to say that it is possible to communicate with ago the government surveys showed a depth of 21 feet of water and now other planets of our system by throwing there are 26 feet-sufficient to permit gigantic letters with these tall-tower lights on the face of the earth. This the passage of ocean vessels of the is downright dreaming, and here we part company with this great artist of The importance of this improvement science. may be judged from the fact that dur-

# DON EMILIO CASTELAR.

cilities have also kept pace with the Spain's Greatest Statesman Pays Compliments to the United States. outlet to the sea, while two other roads

sons think the probability-of a revo lution in Spain which would replace the present monarchy by a republic. In that case the republic's president would unquestionably be Don Emilio Castelar, president of the former short-lived Spanish republic, and Spain's greatest orator and statesman. It will be interesting, therefore, to learn Senor Castelar's opinions on the present difficulties of Spain. In an interview with a representative of Les-Weekly he recently said: He's

"I have been made by the newspapers-the sensational newspapers, here and abroad-to say a great many things which I never said about the nited States, Ah, these sensational newspapers are another plague of this end of our century. Why, Spain is my wheel. It's the one I borrowed."-You'll die while you are walting for these things to come to pass! positively governed by three newspas. Washington Pest. -Atlanta Constitution.

inal courts, mere police courts, are paid by the central government. Glasgov PERSONALLY CONDUCTED has no local judges, the judiciary of Scotland being an imperial charge.

taxes on this basis. In 1896 this city

had, outside of realty taxes, a revenue

of \$10,851,981. This left \$13,177,822 to be

raised by direct taxes. Deduct from

this \$2,000,000 on account of schools of

two-thirds, \$1,200,000 for half the police

and \$700,000 more for judges, prisons,

elections and other expenditures not a

city charge in Glasgow and there is a

total of \$3,900,000. This sum left to be

laspow indiciary outsid

CONTRASTING FIGURES. Philadelphia would have pretty light

of local crim

MATCHLESS IN EVERY FEATURE.

#### CALIFORNIA.

Tour to CALIFORNIA and the PA-CIFIC COAST will leave New York and Philadelphia March 27, returning on regu-lar trains within nine months, Round-trip tickets, including all tour features going and transportation only returning, will be sold at rate of \$208.00 from New York, and \$208.00 from Philadelphia; oneway tickets, including all tour features going 314.75 from New York, \$140.25 from Philadelphia, Proportionate rates from other points.

#### WASHINGTON.

Tours, each covering a period of three days, will leave New York and Philadelphia

New York and Philadelphia March II, April 1 and 22, and May 13, 1887, Rates, including transportation and two days accommodation at the best Washington Hotels, 814.50 from New York, and \$11.50 from Philadelphia.

#### OLD POINT COMFORT TOURS RETURNING DIRECT OR VIA

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#### POPULATION.

city, and in general the bigger the city

But the reason Philadelphia has the ower death rate and some 2,000 people alive at the end of the year who would have died under Glasgow's economical city government is because in Philadelphia the population averages 12.64 to the acre. In Glasgow it averages 56.9 to the acre. As Dr. Russell, the health officer of Glasgow, showed in a recent report in 1891, "half of the inhabitants of Glasgow live in houses of two rooms." The average Glasgow dwelling in 1891 "was a house of 2.33 apartments, containing 4.772 people In Philadelphia there are 5.6 persons to the house, usually of six to eight rooms. In Glasgow almost as many te

the higher the death rate.

a house of about two rooms This is hard on human life, but easy on municipal economy. Let a city b crowded so that all its population is in about a fifth of the area of Philadelphia and the expense for streets rewers, gas pipes and water mains is enormously reduced, but health and comfort are also reduced. Spread the city out and all its expenses are in-

creased, but each family has its house The American plan costs more, but it pays in the end.

### NOT DISOBEYING. .

A friend of mine has a little boy called Robble, and Robble is not at all an imprerootic, and Roote is not at all an inge-child. He is, in fact, the terror of the neighborhood. Not long ago his father bought him a bicycle and Robbie was more an object of dread to the neighbors than over. One day he was detected h ome particularly outrageous act, and hi father, to punish him, forbade him to rid the bloycle for a whole week. Robbi promised, but as his father neared the

ome next day he saw his son whichn along on the whered. "Robble," said he, more in sorrow than he anser, "dide't f tell you you were not to ride your where for a week"" "Yes, sin," said Robble, cheerfully, "and



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There is the possibility-some per

