ENGLAND'S CHURCHES

Many Points of Difference in Sunday

Echools and Services.

THE ROD IS USED ON SCHOLARS.

Devotion to Form and Creed Increase the

Farther West You Go.

CONVERSATIONAL STYLE IN PULPITS

[WRITTEN FOR THE DISPATCH.]

In Worcester, England, in connection

with the Nonconformist Church there is the

oldest Sunday school now in existence. The

school of Robert Raikes in Bristol was held

ina private house, but that in Worcester was

attached to a church, and hence was perma-

nent. The Worcester Sunday school is not

only the oldest but one of the best in Brit-

ain. It has a membership of nearly 1,000,

with elegantly arranged classrooms to the

own. Some churches require a subscription to a total abstinence plank; others announce in their creed a strong Caivinism. But in the English Independent churches the minister's right hand of fellowship receives to full membership all who are indorsed by a vote of the Church.

The Congregational churches of England are at this day virtually on the ground of the Disciple churches of this country in the matter of creeds. A belief in Christ and Christianity is, in fact, the only creed of the Nonconformist churches of Britain. Cove-

Nonconformist churches of Britain. Cove-nants and creeds have well nigh become

obsolete in the Old World. The battle-ground of orthodoxy and heterodoxy has

een of late years shifted from Britain to

QUEER CAVE IN CALIFORNIA.

Pacific Coast Wonder That Has Never

Yet Been Explored.

On the north side of Table Mountain and

near its top is an opening in the lava that

has since its early days been known as "the

lion's den." It was so named from the fact

that for years it was the lair of a band of

ferocious California lions that, when the

country was largely devoted to sheep rais-

ing, made mighty depredations upon the

flocks and caused the owners much annoy-

ance and loss. When pursued the animals

would seek refuge in this den and no hunter

would dare to enter it. The ground about

the entrance was covered with the bones

With the increase of population the lions

have gradually disappeared, although as late as last spring two of the animals were

Oroville Mercury says no known man has ever penetrated this cave to its fullest depth. The mouth is about four or five feet high and three feet wide, and the opening descends with a sharp decline for about 200 feet. Further than this it has never been

will gradually die away in the distance.

The young men have produced several hundred seet of ropes, torches and ladders and will thoroughly explore the cavern.

cesses of Table Mountain the base of the

operations in this section. From there they

laden with gold dust, retreat to the mount-

HOW DR. TALMAGE TRAVELS.

By Compounding a Special Language He

Manages to Get Along.

Many Americans abroad are exceedingly

annoved at their lack of skill in the use of

patient with a "complication of diseases

him a dose. And so I have compounded language for European travel.

landlord that will not understand, I simply

thake up all the dislects and give him

lose. It is sure to strike somewhere. I

I never had the anxiety of some in a strange land about getting things to eat. I like everything in all the round of diet

except animated cheese and odorous codfish

always have a good appetite; never in my life missed a meal save once, when I could

not get any, and knowing that "eine ger ostete rindfleisch schiebe" means a bee

steak, "eine messer" a knife, and "eine gabel" a fork, and "eine serviette" a nap-kin, after that I feel perfectly reckless as

SNAKES ARE OFTEN MUSICAL

Enchanted by the Bagpipe, They Are Not

Bard to Catch.

When a snake has bitten several times

the poison is quite exhausted for the time

being, rendering the animal comparatively

harmless. It is said to be this fact which

enables the Indian snake charmers to handle

their charges without danger. They cease

them into anger, when they will readily

bite a stick or bundle of rags and so exhaus

their venom. Perhaps it will be well here

to say a few more words in regard to snake

are looked upon as guardian angels. Should one be killed the slayer would suffer death

in punishment.
As the music of the bagpipe rises and

falls, the snake seems to sway to and fro, and, all unconscious, is seized by the musician's confederate. In this state of

musical excitement the snakes are said to

SOME ODD SUPERSTITIONS.

The Pearl Hunters of Borneo Are Bottling

Every Ninth Find.

The pearl hunters of Borneo and adjacent

islands have a peculiar superstition. When

engaged in opening shells in search of pearls

they take every ninth find, whether it be

large or small, and put it into a bottle,

which is kept tightly corked with a dead

The pearls thus kept are known as "seed

the pearls to "feed" upon.
Some whites in Borneo believe as firmly

A. M. M.

Weekly.]

man's finger.

any rate give him a terrible scare.

to what I can or cannot get.

St. Nicholas.

would swoop down on the miners, and then,

seen to enter the cave.

and remnants of sheep and other animals.

JOHN H. YOUNG.

eous Apartments With alls of Marble Polished by Nature.

TTY LAKES AND RIVERS

Fountains of Crystal That Have Played for Centuries.

THINGS UNDER THE GROUND.

eries That Tell the Story of the Man of the Stone Age.

PRATIONS OF MARTEL OF PARIS

[WRITTEN FOR THE DISPATCH. ] te past four years E. A. Martel, lawyer of Paris, has made his name nown through his explorations of It costs a great deal of money to riginal investigations in the depths earth, and it is foctunate for Martel : is rich and can afford to employ all n he needs, and provide the very uipment that money will buy. Marhis courage tested and his physical s developed and trained for his chosen y some years of elimbing among the and most difficult of the Alpa. In a made the transition from the highds in Europe to the depths of its least

1 caverns. new work has become the passion of e; but Martel's doings would have nterest for the learned world if his fic instincts and training did not fit imirably to add new facts to human edge. Grottology is a comparatively ndy to which not a few learned men nateurs are now turning their attennowing that thorough cave explora-

Relics of Primeval Man. r since Cuvier, in the last century, attention to the fossil remains of toric man and animals, found in caves, arned world has recognized the imice of this branch of study to paleon-. The most celebrated finds of relies

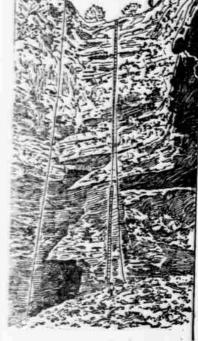
meval man and of contemporary aniare those that were discovered at preuth in Bayaria, at Kirkdale, in hire, at Kent Hole in Devonshire in ves along the borders of the Meuse in um, and in the grottes of the Jura, Sevennes and the Pyrennes, in

caves afford an opportunity for other a of the highest scientific interest. animal life still found in them, the him, the fishes the crustaces and inmost of them blind, and all marveladapted for their environment of cas and gloom, has as vet been studied a very limited extent. Plant life e mosses and cryptogams found in are still little known. Most valuable ations may also be made, under the of the earth, in geology, terrestrial and other branches of knowledge. are also regarded with the most curiterest by tourists and not nearly so has yet been done in Europe to make subterranean wonders accessible to lers as has been done at Mammoth and our own great show caves.

He Is Making the Peasants Rich. found that many of try in the Cevennes were filled with when untrained imaginations peopled with hobgoblins and devils. But he rought a transformation. When he is the Cevennes on his last exploring he was welcomed as the benefactor of untry. His published reports, issued journey, have called attention nd wide, to the wonders and beauties ose caves. Tourists are beginning to to the mountains. The people are ing houses to entertain the visitors. hat you have done for us," said some em to Martel, "has belped us to make money than we ever made in a year

article could be filled with a mere ogue of the marvelous theories and ed facts coming from the early exrs of caves. One of the most remarks. them was the fantastic conception of otanist Tournefort who, in his de-Archipelago, published in 1717, prethat stainctites grew like plants, ks and branches of trees, and the conne rings he found in their internal ture inspired him with the Utopia of the vegetation of stones. How a Great Cave Was Discovered,

one of the great caves explored by Mr. otain side in the department of Lozere, department of Lozere, h France, in pursuit of a fox. Sudr renard disappeared in a hole, and the or, thinking it would be easy to smoke out, kindled a fire and then waited for But the fox did not reappear, finally the young man enlarged the sing and squeezed himself through it. oon found he was able to stand erect.



Entrance to Padirac Cave. lighting a handful of grass an unhear e. Two hours later he reappeared at the ulet in the valley with a blanched face the announcement that he had seen the ilan Cave, one of the largest in Europe, se tortuous galleries, wide and lofty ad lakes and little rivers, have been ex-red and mapped by Mr. Martel. he of these pictures shows the great and

Martel descended, and also his telephonic

Cattle Fell Into the Great Abyss. It happened sometimes that cattle fell down into this abyes 175 feet deep. At last a man fell in and his body could be seen at the bottom of the wall. The natives were not certain whether it was a case of accident, suicide or murder, and the jury of inquest seet some men down to include the pury of inquest seet some men down to include the seet of the

water courses and have surveyed many miles of galleries. Martel regards this branch of terrestrial science as still in its early stage. Mere chance, he says, has thrown in our way about all the knowledge that caves have contributed. He looks for great results from thorough and patient study. It is no child's play. More men are fitted to win laurels in African exploration of accident, suicide or murder, and the jury of inquest sent some men down to investigate. They found more than they sought, for they penetrated the yawning mouth of Padirac. Another picture shows Martel's three boats afloat in the depth of Padirac,



THE RIVER IN PADIRAC CAVE. [Martel's Party Over 600 FeetUnder Ground 1

the man in the rear lighting up the scene with a strong reflector. The party is over 600 feet below the surface.

In 1888 and 1889 Martel explored 14 of the light.

The last Fig. 1888 and 1889 can be revealed by the study are brought to the light.

CYRUS C. ADAMS. mowing that thorough cave exploraall enrich several branches of
e.

the largest French caves. In so short a
time he could make merely a preliminary
survey, but he has since carried out a very thorough study of some of the caves. He has now explored 20 French caves, besides extending his labors briefly into subter-ranean Algeria and Greece. His special study is the genesis of caves and the origin of underground rivers, and he maps very carefully all the caverns he explores. It is well known that rivers, here and there, seem to spring full grown to the light of day, and most writers have been able to

conceive them as originating only in large subterranean lakes or reservoirs. The Mysterious Origin of Rivers, Martel has thrown light on this question These reservoirs and "mother sources" must for the most part take their place among the chimeras. His researches have con-firmed the view that the subterranean rivers are usually formed by little rivulets filter ing through the upper strata and meeting at last to form an underground stream. It is these waters of infiltration that by their



Martel Emploring an Abyss.

erosive and chemical action dig out and shape the limestone caverna.

Martel leads quite a caravan into the field when he starts on his explorations. As his party drove into a hamlet one day the as tonished natives asked if a circus had come to town. Ten to 15 men usually take part in the work, and with the wagon train with the exploring and camping outfit and provisions, including milch goats and coops of poultry, they are almost as impressive in pearance as a Central African expedition. As the party often plunges into the mountains, many miles from all sources of supplies, it is necessary to carry a large quan Martel's exploring tity of provisions equipment includes an electric telephone No vertical descent is possible without this appliance, for at a depth of 90 feet it is mpossible to distinguish words on account

of the vocal reverberations. In the Sauveterre Cave. picture here shows Martel as his comrades are lowering him into the abyes of inky blackness in the Sauveterre cave. Two lines connect him with his friends, and one of them is his telephone wire which he needed long before he had fathemed the mysteries of that frightful precipice.

He carries from one to three loats, that

can be taken apart, packed in small space and put together in 15 minutes; flash lights for photographing, electrical apparatus, 1,500 feet of rope of the size used by gymnasts, 150 feet of rope ladder in sections but attachable, a wooden ladder 22 feet long. divisible into four parts, stearine candles about two inches thick with large wicks, tinder to kindle fires if the matches becom hunting horns and whistles for signalling, white paint to mark routes of in gress and decrease the danger of getting lost in the mazy passages, magnetic compasses for mapping purposes, and hammers, pick-axes and dynamite for clearing passages. Dynamite, however, is used with extreme caution, and only as a last resort in open

ing passageways. Man in the Age of Stone While Martel's scientific work has been chiefly confined to the study of subterranean hydrology and the formation of caves, it has been his good fortune to throw valuable light upon a question relating to pre-historic man, and not a few paleontologists believe that his discoveries in the cave of Nabrigas have decided a controversy that has bewaging for 50 years. Many scholars have long maintained that there was no convinc ing proof of the existence of man in the age of the great cave bear, and also that ther was no proof that man in the stone age had

even rudimentary notions of pottery mak Even the find of Prof. Joly in 1835 of large tragments of pottery mingled with the bones of the cave bear, did not convert the sceptics. But Martel has found in the cave of Nabrigas, where they had been preserved tor uncounted centuries under a stratum of rock, a part of a human jaw, eight other fragments of buman skulls, and a large piece of pottery in immediate contact with the re mainy of two cave bears. The double prob-lem of quaternary man and of the paleolithic potters seems to be solved beyond further dispute, for Martel's discovery proves the existence of man in the Lezere at the epoch of the great cave bear, and the knowledge

of pottery at the same epoch. The Austrians Making It a Study. While Martel is now regarded as the leading spirit in cave exploration, the Austrians are beginning to give great attention to this study, and for several years a number of naturalists and Alpinists of ne of these pictures shows the great and respect to the first shows the left is seen the black mouth of the at cave of Padirac. The picture also was the long rope ladder by which ing particular attention to underground

number of 27. An enthusiastic Sunday school superintendent of one of Pittsburg's leading

STIR AMONG THE RACERS.

The Outlook for an International Regatta

There has been an annual stir-more or less

newspaper stir, be it confessed-every

year since 1887, over the prospect of an En-

glish yacht coming over to race for the

America's cup, and each year, after a few

day's exploitation, the commotion has given

place to the usual peacefulness that charac-

for an international race is very gloomy.

The Englishmen declare positively they will never race under the present Deed of Gift, with its dimensions clause compelling them to give away all the measurements of their boat ten months in advance of the

Even if an international wacht race seems

to be out of the question, it is very com-torting to know that a Yankee fin-keel,

the Herreshoff Wenonah, is walking away with all the prizes in her class in British

HIS LIFE WAS SAVED.

Young Man Became Angry Because He

"I never hear of any one being drowned

that I don't think of an amusing accident

which happened to me once," said Clerk

Donal, of the Coroner's office, while in one

happened while I was working in the Navy

"I was working on the stern of a vessel

and was walking along with a hatchet in one band and a saw in the other when I lost

my balance and plunged into the river. I didn't want to lose my tools, so I struck out

for shore and never worked as hard in my

life as I did then, for I was working for my life. I plunged and sputtered and pushed until I was near the shore, when my breast struck something, and as I dropped my legs they struck something which I soon found

"Didn't anybody go to your assistance?"
"No. They stood on the shore laughing at me, and when I found I had run ashore

they wanted to know if they should send for a tug to pull me off. When I made an

investigation I found the water was not over four feet deep in the deepest part, and

that I could have waded ashore with the greatest ease. I was mad, of course, but after I got on dry land I could see the ludicrous side of the affair, and I have a

hearty chuckle to myself every time I think of it now, although it happened a good many years ago."

CAMPAIGN SONG.

Air-"Marching Through Georgia."

see the voters fall in line their duty grand

The fight they made in '88 they'll make in '98, Bringing in Ben Harrison, the staunch, the tried, the true.

tried, the true, Yes, Ben shall tarry in the White House.

Hurrah, hurrah, for Harrison and Reid! Hurrah, hurrah, we'll keep them in the

lead, Uncle Sam is proud of them, he is, he is in-

deed, And Ben shall tarry in the White House!

to viet'ry at November's polls we read our

title clear. We're bound to win, we're bound to win, the

We may be beat some other fail, but not, O not this year, So Ben shall tarry in the White House!

The people's voice is ringing clear the mighty Union through,

And as our ancient foes give ear they must be feeling blue, For 'tis a voice that earnest cries, "Ben Har-

rison will do, And he shall tarry in the White House!

We fight for all that best conserves our land

from sea to sea,

For all that makes her truly strong and
prosperous and free,
For all for which the letters stand, the cherished G. O. P.—
So Ben shall tarry in the White House!

So Democrats if wise you are, our course you'll not impede, Resolve that you will do a wise, a patriotic

deed; Come Join with us and east your votes for Barrison and Reid, For Ben shall tarry in the White House!

Chorus:

horus:

skies are full of cheer.
may be beat some other fall, but not, O,

of his reminiscent moods yesterday.

Worked Too Hard for It.

hiladelphia North American.]

"Let's have it."

waters.

Is a Little Dark.

Harper's Weekly. 1

suburbs who, more than a score of year ago was a member of the Worcester school and there won his bride from among the pupils, has recently returned from a visit there and in a recent interview, furnished the following facts as to the difference between Sunday schools in America and England. In Worcester and in nearly all the Nonconformist Sunday schools; of England, two sessions are held on Sunday, one immediately before the morning church service and another in the middle of the

They Whip the Scholars. The discipline in these schools is much the same as in the public schools on the week day. The rod is not spared, when it is considered necessary to maintain order. A case was related in the interview where a boy received a blow on the side of the head from a Bible in the hands of an impatient

A box on the ear, or the use of the switch in extreme cases would be an anomaly in American Sunday schools, but in the inde-pendent churches of England it is considpendent churches of England it is considered as much a matter of course in the Sunday school as the day school. My informant stated that in his visit to more than 20 Sunday schools, in Staffordshire, Worcestershire and London, he witnessed a number of cases of this kind of discipline.

In the regular church service the Sunday school is provided with a place, usually in the callery and is under the supervision of

the gallery, and is under the supervision of a few of the teachers who are designated for this supervision weeks ahead. Children rarely sit in the family pew. Unless by special permission and arrangement from the superintendent or Sunday school teacher they are expected to sit in the place provided for the entire school.

place to the usual peacefulness that characteizes international yachting matters on this side of the Atlantic. The same old "if," as applying to rescinding the dimensions clause in the Deed of Gift, is always the stumbling block, and has become a veritable bete noire to American yachtsmen.

This year the stir is without foundation, for no challenge has been sent, and even hrd oue been received and accepted no race would be held until "93. But the prospect for an international race is very cloomy. Music From a Thousand Throats, At the opening of the church service in the morning, a hymn is sung by the Sun-day school scholars—the same hymn, as a rule, that was sung by them at the close of the Sunday school exercises. In the Wor-cester and Birmingham churches this opening hymn, in which over 1,000 well-trained youthful voices join, has a very inspiring effect on the church service to follow. These opening hymns are selected at the beginning of the year for each Sunday of them to give away all the measurements of their boat ten months in advance of the race, and those members of the New York Yacht Club who have the matter in charge are equally positive in declaring that the dimensions clause shall remain. To the cutside yachtsman—in fact, to any sportsman—it looks as though the N. Y. Y. C. committee, having taken this position, was determined to hold it, despite the consequences. However, as the races have always been arranged between two or three men on each side, it is beginning of the year for each Sunday of the year, and the number of the hymn is on a printed slip, which is pasted on the fly leaf of the scholar's hymn book. In En-glish Sunday schools each scholar is ex-pected to provide his own hymn book and Bible.

The chorister who is as important a factor

in the church service as the minister meets one evening of the week with the children and one with adults for musical practice, and thus the musical talent of the churches tween two or three men on each side, it is possible that some contingency, of which none outside the innermost circle are informed, may have demanded this "obnoxious clause." Whatever the cause, the fact remains that yachting on both sides the Atlantic is suffering from the deadlock praise service. With the backing that comes from the Sunday school department of the church, the singing element of worship is much better as a rule than in the churches of this country.

The Song of a Vast Congregation Henry Ward Beecher, when in the height of his glory in Plymouth Church, Brooklyn, said that there was nothing so inspiring in religious worship as a vast congregation joining in the service of song. Instrumental music is good in its place as a help to congregational singing, but no instrument has yet been invented which equals the human voice divine in lifting the worshipful spirit into heavenly places. The English Churches

seem to appreciate this truth more than the churches of Aperica.

There is much less trash in the hymnology of the fatherland churches and Sunday schools than here. Such songs as: "Shall We Gather at the River," are not tolerated in the song services of the old country. Here this class of Sunday school hymns have an ephemeral existence, but in Eng-

land have no existence at all.

The old spiritual songs of David, to which our United Presbyterian friends cling, have the merit of sold worth, and many of then are as fresh to-day as when composed by the sweet singer of Israel; but a large ma the sweet singer of Israel; but a large ma-jority of our modern songs of praise have no enduring quality, and though popular to-day are forgotten to-morrow. The song services of Britain's churches and Sunday chools are of a much more substantial an enduring quality than on this side of the water. Conversational Style of Preach

The Congregational churches of England show as marked variation in methods of worship from those of America as do the Sunday schools Loud and boisterous preaching is a thing altogether unknown at this day in English churches. The quiet, conversational style is now the rule with preachers. In some benighted districts ranters and stormers still have a constitranters and stormers still have a constituency, but their day is fast passing away.

The two great preachers of this age,
Spurgeon and Beecher, in the early years
of their ministry, were somewhat noisy,
but in their later years grew less and less
boisterous in their style of oratory. It has
been discovered that noise does not emphasize truth. A good thought quietly stated
finds its way to the mind and heart without
noise. The writer has observed that preachnoise. The writer has observed that preach ers when they get into the woods and are lost for ideas generally get loud, and try to lost for ideas generally get loud, and try to extricate themselves by stump oratory. The best pulpit orator I have heard had no rules of elecution to guide him. He was blind for 20 years or more of his ministry. His power consisted in having something to say and saying it in clear-cut, conversational way. He spoke as nature dictated and had always eager listeners.

Eternal Punishment Is Discarded. The belief in eternal punishment is no longer an essential in the orthodox churches of Engiand. Leading ministers of the Non-conformist church publicly proclaim their disbelief of the doctrine as held a generation ago. Drs. Dale, of Birmingham, and Parker, of London, would be at once arraigned before an ecclesiastical court for heresy if their lot had been cast in this country. At the International Council of Congregational Churches held last fall in London it was clearly demonstrated that the orthodoxy of American preachers was much more intense than that of the English preschers. It is a significant fact that at the fountain head of Puritanism ministers and churches are broader in their views than in this land.

And at the London council the repre-sentatives of American Congregationslism who hailed from the West seemed more decided in their adherence to old-time beliefs than those from the New England States. Chicago delegates were more ortho-dox than those from Boston.

Creeds Are Passing Away.

Articles of faith and subscription to a Church covenant are things of the past, so ers" in search of corks for their bottles.

far as Nonconformist Churches of England are concerned. No creed is presented to the applicant for admission to Church fellowship. The applicant meets with a Church committee and is by them examined as to his experience and belief, and recommend to the Church which votes to receive him to

A Great Difference Between the First his experience and belief, and recommended to the Church which votes to receive him to its fellowship. In the presence of the congregation the minister does nothing more than give the right hand of fellowship to the members received by the Church, exacting no promises and demanding no subscription to articles of faith. The Congregational churches of America have usually articles of faith which the applicant must agree to on his and Second Parts.

Dispute Between the Scholarship of Ancient

and Modern Times which the applicant must agree to on his reception to membership. These articles are not uniform, as each church adopts its own. Some churches require a subscription

NOT OF ANY CONCERN TO RELIGION

WRITTEN FOR THE DISPATCH, I The book of Isaah falls into two quite distinct divisions. The second part, which begins with the fortieth chapter, is so different from the first part, and different in so many ways, that the question is suggested, and has now for some years been ardently debated, as to whether the two parts could possibly have had the same author. Did Isaiah write the whole of "Isaiah?"

Thus, besides the historical and theological points of view from which the last 27 chapters of this book may be studied. there is also the literary point of view. Of

this I will speak first. When we ask, Who wrote these chapters? and answer our own question in the old way by the name of the prophet Isaiah, we find ourselves contradicted by the great company of modern Biblical scholars. The general verdict of modern scholarship is that Isaiah was dead at least a hundred years when the last part of the book of Isaiah was written.

It Does Not Concern Religion. The first thing to be said about this matter is that it has nothing whatever to do with religion. It has really no more to do with religion than the controversy as to whether Shakespeare or Bacon wrote the plays of Shakespeare. The titles that are set at the beginnings of the books of the Bible are not a part of the Bible. The Old Testament titles were for the most part set in place by Jewish teachers in the two or three centuries before Christ. These teachthey were not especially inspired. Certainly they were not infallible. And the titles are simply the record of their private opinions. Because they said that certain books were written by Moses, that does not settle that matter for us. Because they said that certain positions are settle that matter for us.

settle that matter for us. Because they said that certain psalms were written by David, we have not therefore any sacred limitation set upon our literary judgment.

Indeed, the chances are that scholars today are in a position to know more than those old rabbis ever dreamed of. There are better scholars in the world to-day than there have ever been. Those good Jews of the ancient time, using the best judgment they had, set together a considerable number of chapters, 66 in all, and labeled them with the name of Isaiah. But the fact that they put them all together under explored. Now, however, a party of young men have made arrangements to explore it, and, if possible, penetrate to its bottom. That it is of great depth is certain, for one can stand at the opening and heave great stones down the declivity and the sound will grown like the sound will grown like the sound will grown like the sound will be sound the distance. fact that they put them all together under one label does not prevent us from looking into the book to see if they were right.

What adds a peculiar interest to the ex-pedition and gives zest to the explorers is the well-known fact that in the heyday of his career as a bandit Joaquin Murietta and his band of faithful followers made the re-Modern Versus Ancient Scholarship, So far as the first half of the book goes the book itself tells us who wrote most of it. It is not the old Jewish teachers, but the sacred Scripture itself which tells us of the Issiauic authorship of this much. But there is a great break at the fortieth chap-ter. The scene entirely changes. The style is different. The point of view is altered. And the Bible has here no note of ains. Search as they might, the officers could not locate them. It has been supposed by many this cave was where the famous outlaw secreted himself. It may be, too, that deep down in the bowels of the earth Joaquin hid the greater portion of his il lgotten, but nevertheless just as potent, wealth. authorship whatever. The name of Isaiah, which enters often into the first half of the which enters often into the first half of the book, is found in the second half never. Let us understand, then, that any dispute as to the authorship of the last 27 chapters of Isaish is not a dispute between modern scholars and the Bible, but between modern scholars and certain old unknown Jewish scholars who lived in Syria or in Egypt several hundreds of years before the birth of Christ. I confess that in such a different confess that is not a dispute that is not a different confess that is not a dispute confess that is not a of Christ. I confess that in such a differ

the European languages, writes the Rev. T. ence of opinion my sympathies are with the De Witt Talmage in the August Ladies' Neither is the denial of Isaianic author-Home Journal. After a vain attempt to make ship in any way derogatory to these latter chapters. It simply leaves them anonya Parisian water understand French they mous. But a great deal of Holy Scripture ways remembered when traveling abroad is anonymous. Who can set any author to many of the pealms which help and uplift the art of the physician who put all the remains of old prescriptions into one bot-tle—the oil and the calomei and the rhubarb he Hebrews? The lesson of a great deal of and the assaicatida-and when he found a Holy Scripture is that God cares more that he would shake up his old bottle and give we should learn to reverence the truth that that we should reverance the preachers of truth. The truth is the one thing im-I generally take a little French, and a little German, and a little English, with a few snatches of Chinese and Choctaw, and when I find a stubborn case of waiter or

Truth More Important Than Authorship. And God would have it believed for its own sake, because we recognize it is as true, not because some great man said it, Those great religious truths do not need any man's authority. Inspiration is not to be measured by great names. Isainh was not the only inspired man of those ancient times. The author of those last 27 chapters was as much inspired as Isaiah. The voice of the Most High God is audible through-out. The question of authorship and the question of inspiration have nothing to do Another thing to be said in this connec.

tion is that the decision of this question must be left to the scholars. The question f authorship, one must see at once, is largely a question of style. Every writer has his own characteristic way of wrising. If you should find a roll of paper upon which somebody had copied down certain things out of the Spectator and had labeled the copy by the name of Addison, and then in the middle, without any indication of change of authors, had ceased to quote Addison, and had concluded with a quotation from Carlyle, you would know the difference. You would be perfectly sure that there was a change of authorship just at that place. Nothing could persuade you that Addison wrote those last pages. The style would show that to be impossible. For there is as much difference between Addison largely a question of style. Every writer there is as much difference between Addison and Carlyle as there is between the comedies of Sullivan and the epies of Wagner.

The Effect of Translation. But suppose, now, that the roll of manu-script were translated out of English into German and thus read by an uncritical Gercharmers.

Many kinds of serpents, especially the hooded cobra of India, are thought to be affected by music. In capturing them for exhibition, the Indian takes his bagpipe, and, stationing himself near an old well or ruin, begins to play. A cobra is almost certain to make its appearance soon, for they are very numerous in that country. They are held in sacred reverence, the little children calling them "uncle," and setting saucers of milk for them to drink; and they are looked upon as guardian angels. Should one be killed the slaver would suffer death man reader. The chances are that the transition from Addison and Carlyle would be missed altogether. The personality of the translator would come in to obscure the ifference. The sentiments would still be those of the originals, but a good deal of the style would be neither that of Addison nor Carlyle, but of the translator. Nobody would see the wide difference unless he understood English.

See, then, where we are. This roll of nanuscript which we call the Book of saiah was written in Hebrew. It was all translated into English by one man or company of men. The English of it is the English of the days of James L. If there is a difference between the first 39 and the last 27 chapters the translation will disguise it. The difference in style which is plain to us The difference in style which is plant between Addison and Carlyle, will be plainly visible, if it exists, to the Hebrew scholar. But we are not Hebrew scholars. Very few people will read these words to-day who can understand a single sentence of the Book of Isaiah, either in part one or in part two in the original language in which it was written. We have no business, therefore, to have an independent opinion on the subject. Our ideas are of no value. The only thing that we can do is to depend upon the verd et of the only men who are in a position to judge, that is, the scholars. The scholars, it is true, are not unanimous. So that we take one side or the other as we please. verdict of the largest number is that the last 27 chapters of this book were written by some great unknown who lived at least 100 years after Isaiah himself was dead.

pearls, or breeding pearls," the natives of the island firmly believing that they will reproduce their kind. For every pearl put in the phial two grains of rice are put in for Change of a Bundred Years. This mention of a hundred years brings to in the superstition as the natives do, and almost every but along the coast has its "dead finger" bottle with from 9 to 50 "seed pearls" and twice their number of rice grains carefully and evenly stowed mind the one great difference between the first and second parts of the Book of Isaiah which we unscholarly people may see for ourselves. I mean the difference in the historical background. In the first chapter of the book the Kings are Ahab and Hezekiah. The great hostile power is Assyria, and the head of Assyria is Sennacherib. and the head of Assyria is Sennacherib. The time is the eighth century B. C., and

THE BOOK OF ISAIAH. the place is Judah and Jerusalem. But with the fortieth chapter everything changes. The scene is now the far East. Judah and Jerusalem are in ruins. The Judah and Jerusalem are in ruins. The Jews are in exile. The great Empire of Assvria has given way to the great Empire of Babylon; and that, in its turn, is on the eve of being destroyed by the vast armies of the Medes and Persians. And while the great sovereign of the first part is Sennacherib, the great sovereign of the second part is Cyrus. But between the day when the Jews were looking for Sennacherib, and the day when they were expecting Cyrus, there was an interval of almost 150 years. There is a change, then, between the first NOT OF THE SAME AUTHORSHIP. There is a change, then, between the first part and the second, of nearly 150 years.

> ant of Hebrew. Let us now leave the question of author-ship, which, after all, is only a literary question, and has no real connection with religion, and come to a matter of more consequence, the scenes in the midst of which the author wrote. We study the historic background.

That is plain even to those who are ignor

Might Have Had a Vision. If Isaiah wrote the last 27 chapters, then he saw this all in a vision, transporting himself into the future. That is entirely possible. God could have told Isaiah what was coming several centuries ahead. If, however, the Great Unknown wrote these chapters, then he lived, like all the other prophets, in the midst of the scenes which he described, and was an actor as the others were in all this history. These sermons then, like all the other sermons of the then, like all the other sermons of the Bible, were presched on texts taken, like the editorials in the daily papers, out of the events of the day. That is certainly probable. Of two alternative explanations of anything in the Bible or out of it, it is always wise to choose that which is most in accord with God's ordinary way of working. And God's ordinary way is not to belot the And God's ordinary way is not to help the preacher to preach a sermon which may be of use a bundred and fifty years afterward and is no use whatever now, but to preach a sermon that will fit the congregation and the day.

In any case, we are interested in the his-

toric background.

The first thing is to learn the history which lies between the 39th and the 40th chapters of the Book of Isaiah. Senna-cherib went home from his strange defeat and never again troubled the provinces of and never again troubled the provinces of Palestine. His most eminent successor was Ashur-bani-pae, who was the Augustus of the East. In his reign literature and art flourished wonderfully. After his death the power of Assyria began to decline, and the power of Chaldea began to grow. The great city of Assyria was Nineveh; the great city of Chaldea was Babylon. Babylon rose in rebellion and Nineveh; was decreased to the control of the con lon rose in rebellion and Nineveh was destroyed.

Among the Exited Children. The Chaldeaus became the great power of the East. The great king of the Chaldeaus was Nebuchadnezzer. In his day the old ambition of Sennacherib to fight Egypt was revived again. Once more an army marched against Egypt, and the power of that great nation was broken. On the way, Judah fell into the hands of the Chaldeana. Twice fell into the hands of the Chaldeans. Twice the Jews rebelled. The first rebellion, under Jeholkim, was punished by carrying away into exile of a great company of Jewish people. The second rebellion, under Zedediah, was followed by the exile of almost all the others. Jerusalem was laid waste; the temple of the Lord was burned.

In Babylonia, among these exiled Jews, the second Jeaiah uttard his prophery.

the second Isaiah uttered his prophecy. Already there were indications of a new political overturning. As Isaiah had antic-lpated the coming of Sennacherib, the Assyrian, as Jeremiah had awaited Nebuchadnexter, the Chaldean, so the great nnknown looks for Cyrus, the Persian. Cyrus, he declares will be the deliverer of Israel. Cyrus is on his march of conquest as these sermons of comfort and hope are preached.

Under these circumstances, in the midst of these great political changes and chances, what did the prophet say? The 27 chapters fall into three divisions of nine chapters

Liberty to All the Captives,

The first division is a demonstration of the certainty of release and restoration. "Comfort ye, comfort ye my people," are the words that are set at the beginning. And what is the ground of the certainty? Strong faith in the righteousness and in the power of God. These chapters are full of omparisons between God and the idols of Babylon. No graven image, whether of a deity or of a dollar, can stay the sure de-liverance of God; God will defend the right. We look about at the evil condifight. We look about at the evil condi-tions which beset us in our day, at the great company of our brothers and sisters held in bondage not by any prince or potentate but by poverty. We wonder if there can be any end to all the contradic-tions of Christianity which confront us in the social and industrial world in which we

And the prophet brings even to us his message of hope. Somehow, in his own wise way, the same God will again proclaim liberty to all the captives, sight to all the blind, and health to all the bruised. The prophet looks out toward the horizon, and behold, a great company is coming, sent of God. Cyrus adproaches. And Cyrus is the messenger of God. The truth which underlies that is adproaches. And Cyrus is the messenger of one place to another upon the mine trucks, God. The truth which underlies that is true to-day. All the great movements of ot trouble and expense. Multitudes the race are signs of the working of the ever-present God. The Leader of the World.

In the second division of the chapters here is no more mention made of Babylon or of Cyrus. The prophet looks past all that into the future, the future of restored Israel. He depicts the ideal kingdom. Especially he depicts the ideal prophet who in that day shall be the leader and the example of the people. He is called the Servant of the Lord, a mysterious figure, sometimes. times a personification of a nation, sometimes their great guide and leader. He is not only to be the restorer of the people, but the teacher of the whole world, a prophet to the Gentiles. And he is to die for his people, the innocent for the guilty. Thus the prophet looks into the far future. The Golden Age, he teaches, is yet to come. The horizon is radiant with hope. exiles, comes the hero will win the victor exiles, comes the hero will win the victory of victories, whose power shall not fall like the scepter of these Eastern monarchs, but shall endure forever; and he will be our hero, and his victory will be our victory. GEORGE HODGES.

BALF WAY TO THE MOON. the Total Number of Cables in the Worl Would Cover the Distance,

The various governments of the world own together 880 cables, having a total length of 14,480 miles and containing 21,500 miles of conductors. The French Government, which takes the lead as to length of enbles, has 3,460 in 54 cables. As to number, the Norwegian Government comes first with 255 cables, having a total length of 248 miles. Finally, as to the length of conductors, the English Government comes first with 5,468 miles of conductors, divided among 115 cables, having a total length of 1,588 miles.

Private companies to the number of 28 own 288 cables, having a length of 126,864 miles and containing 127,632 miles of conductors. The French companies, only two in number, the Compagnie Francaise du Telegraphe de Paris a New York, and the Societa Française des Telegraphes Source. Societe Française des Telegraphes Sous-Marins, have 18 cables, with a total length of 7,249 nautical miles. The most impor-tant of the private companies is the Eastern Telegraph Company, which operates 75 miles, with a total length of 25,347 miles. The total number of cables in the world is 1,168, with a total length of 140,344 miles, and 149,193 miles of conductors. This is not

extend more than half-way there. The Swaying of Chimneys. On the subject of the swaving of lofty chimneys it is declared to be absurd to hold that a chimney, say 400 feet high, would away 16 inches. The slightest vibration is felt when on a tall chimney, and one inch and a half is thought to be about the extreme amount of swaying that takes place.

How a Light Balloon Can Be Used for War Communication.

INCANDESCENT LAMPS UTILIZED.

Keeping Tab on the Rise of a River by Means of Organ Pipes.

ONE USE OF THE STORAGE BATTERY

IWRITTEN FOR THE DISPATCH.

It is seven years since the British Govrnment turned its attention to the question of using balloons for war purposes. In the year 1885, at the Inventions Exhibition held in London, one of the exhibitors was Eric Bruce, who showed what might be done in the employment of balloons in war, and many of the naval and military authorities were much impressed by the demonstration. This official recognition led to the permanent appointment of Mr. Bruce to the supervisorship of experiments with a view to perfecting the system he had taken such prominent part in inaugurating. Some of the results of Mr. Bruce's labors have been exhibited in England before a gathering of the military and naval attaches of various embassies with great success. The object of the latest inventions in connection with the electrical war balloon is to facilitate night signaling to long distances and in places where ordinary signaling would be impracticable, such as wooded and hilly

The balloon consists of translucent material, which incloses several incandescent electric lamps, supported on a specially devised holder. The lamps are in circuit with a battery controlled by the signaler, who remains on the ground, and, by varying the duration of the flashes of light, signals can be sent in any direction, according to the Morse or any other code, and read at a

distance of six miles.

The material of the balloon used in London was varnished cambric. The improve-ments which have recently been made conments which have recently been made con-sist mainly in the reduction of weight in almost every portion of the apparatus. The balloon, itself, although much lighter than the original model, is not less efficient and much more portable. This system of bal-loon signaling has also been adopted by the

Professor E. J. Smith describes how he was enabled to ascertain from time to time the rate at which a river a considerable distance away was rising after a fall of rain. He used simply two organ pipes and a telephone circuit. At the river station he fixed an organ pipe vertically in an inverted positton, so that the water in the river acted as a stopper to the pipe, and the rise or fall of the water determined the note it gave when blown by a small bellows driven by a very small waterwheel. A microphone was attached to the upper end of the organ pipe, and this was in circuit with a wire leading to the second station. Here was an organ pipe exactly like the other which eould be lowered into a vessel full of water while it was sounding. By means of the telephone the note given by the pipe at the river was clearly heard as the second station, at which the duplicate organ pipe was raised or lowered by hand until it gave the same note. The length of the organ pipes under water at the two stations was then equal, so that the height of the water in the distant river was known. The total height to be measured was 17 inches, and the determination could be made in less than a minute by an ear fairly ensitive to musical sounds. A lad with an average ear was able to get the two heights to agree within one-eighth of an inch of each other, while a person with an educated ear adjusted the instrument imdifference in temperature between the two stations would make a small difference in the observed heights. The organ pipes were of square section and made of metal to resist the action of the water.

Electric pumps are now in general use,

but their most important application is found in mining operations. The reason of this is readily gathered from the fact that for every ton of coal mined nine tons of water have to be pumped to the surface. Electric transmission admits of the use of pumps in places where it was impossible to operate steam pumps on account of the great difficulty in transmitting the steam from boilers above to the steam pumps beow. The electric pump can be shifted from of small pumps in the different veins of a mine are employed for forcing water from the small springs back to the large heavy mine pump at the foot of the mine shaft, which is used to raise water to the surface. All these can be electrically perated from the power station above. The power house of a plant installed for the working a mine in Colorado is five miles distant from the mine, and it delivers more than 1,200 horse power. This is sent up the mountain side and across chasms and precipices by means of a small copper wire. The line may be, as it was last winter, buried under many feet of snow, but the power still comes on without interruption. In this mine not only is the pumping done lectrically, but every other opera drilling, cutting, blasting, carrying to the shaft and hauling to the surface, us well as lighting and ventilation.

The Storage Battery Again, While the champious of the storage battery maintain as hopefully as ever that the triumph of their system is only a matter of time, and the trolley is being adopted all over the country, it is interesting to note that on a line in New Hampshire the storage system is supplementing the other. The road is full of steep grades, and one of them right at the end of the line farthest from the power house is over 9 per cent. In to save the great strain which the propulsion of cars up this grade would involve from four to six horses have been kept at this point. The trolley connection was broken and the horses were hitched on and whipped up the grade. It occurred to the managers of the road that a more effective, not to say more merciful, way of preventing their traffic from coming to a standstill by the stalling of the cars along the line would be the road of the stores. the line would be the use of the storage battery. Forthwith 238 cells of battery were put in a small outhouse at the top of the hill and charged from the station. As soon as the car reaches the bottom of the hill the trolley circuit is opened and the batteries are not in from them current to enable it to mount the hill, the top of which is about 300 feet off. Fifty passengers can easily be carried, and the plan is said to be working well.

The practicability of telephone communi-

cation between an army and its advance scouts in time of war has been thoroughly established, and an army commission has been appointed to carry out further experiments. An apparatus used in these tests is a light, strong reel, upon which 1,700 feet of telephone cable is wound. The cable is of unusually small diameter and weight, the whole contents of the reel weighing but 17 pounds and the reel frame itself less than two pounds. The wires from the cable are attached to a flexible connector, which brings the conductors in electrical connec-tion with the bearings at either end of the reel. A head telephone connected with the