

they are unable to see that this very spirit of secrecy will in the end be their ruin, and when it is too late, they will repent of it.—*Pull Mall Gazette.*

ROMISH INTOLERANCE IN THE BRAZILS.

Great excitement has been produced in Brazil by the action of the Bishop of Pernambuco in forbidding the burial in consecrated ground of the remains of General Abreu Lima who was perhaps, the most noted historian of Brazil. He was a man of great talents and acquirements, and of high character and position. Some two or three years ago published a very able defence of the Bible against the attacks of the priesthood. The contest was carried on till the General exposed in a most masterly, though violent, manner the errors of the Roman Catholic Church. He died a few weeks since, at an advanced age, and immediately the Bishop issued an order prohibiting his burial in the Roman Catholic cemetery. The community formerly considered one of the most bigoted in the empire, was greatly incensed. A large concourse of people carried the body and laid it to rest in the English cemetery. The Bishop has been roundly abused by the press throughout the country, almost without exception, for his conduct in the case.

JUSTICE IN NEW YORK.

The *Troy Times* complains that it has another illustration of the manner in which justice is mocked in New York, by the arrest of a Troy citizen in this city last week. The charge against him, it says, was false, and the entire proceedings show a contempt of law and justice on the part of the officers. The account given was as follows: The gentleman arrested was the president of a manufacturing company in Troy, the nominal capital of which was \$500,000. The company of which he had been the president had never proved to be very successful in its operations, and had been kept alive by resources furnished from his private funds. At one time he owned most of the stock of the company. There were ten thousand shares of \$50 each. Thirty of them he gave to an individual supposed to have some influence in introducing the article manufactured by the company. This individual, from some cause or other, imagined that if he could only get the ear of justice, knowing she was blind, he could, by swearing strong enough, obtain an order of arrest and hold to bail an amount which would trouble even bank presidents to give. The services of a lawyer suitable for that kind of work, were secured, the affidavit made, and an order obtained from Judge McCunn to hold to bail in the sum of \$40,000. If all the allegations contained in this affidavit were taken as true (which is denied), the plaintiff would have been entitled to recover only the sum \$105. This order of arrest, however, required two sureties, and they must justify in \$80,000 each, which is equivalent to bail in the amount of \$160,000. Upon this basis of bail it would require over \$50,000,000 to bail the defendant if prosecuted by all the stockholders. The arrest was made. The bail must be forthcoming or Mr. ex-President must visit Ludlow-st. Jail. Upon payment of \$100 dollars to the officer who arrested him that calamity was averted for one day, to get time to procure bail. Bail was obtained—the necessary bond executed and the sureties justified, and, by an examination entered into, established the fact that they were worth over \$400,000 over and above all debts, &c. When that was done the fees of the clerk in the sheriff's office for drawing bond, &c., were paid, amounting in some way to just \$11.75. The defendant now supposed all had been done that was necessary to effect his liberation from arrest; but in this he was mistaken. One hundred dollars more was asked and paid to the officers to have his bond approved! The poor victim who was thus robbed out of over \$200 considers it "a fine joke on the old man." We have the above facts from an entirely reliable source. We are also informed that, in fact, there is not the shadow of a claim against the defendant, and that the whole thing was trumped up to black-mail him into paying something rather than be locked up in jail. Should not something be done to guard the citizen and protect him from such outrages in the great city of New York?

Scientific.

AMERICAN.—The Ethnological Society has published, for private distribution, an interesting analytical alphabet for the Central American languages. This was a paper read before the society by the distinguished ethnologist and traveller, Dr. Hermann Berenat. It presents a remarkable peculiarity. Although not for the purpose, the alphabet answers for the North American languages, and will do so for those of South America. It can also be used for Spanish and Italian; and, if some distinctions are excluded, and the introduction of the German *ae, oe, ue* allowed, together with the use of long and short vowels, it would be suitable for German, French and English.

THE OPEN FIREPLACE.—The open fire is retained in our drawing-rooms not only because it is pleasant to look at—and this is something—but because it is not injurious to health, as is the stove. The latter

heats solely by raising the temperature of the air of an apartment, and is in a great measure inimical to free ventilation; because if plenty of cold air is admitted, the temperature of the room is reduced, and the exclusion of the cold air is one reason why a handful of fuel will do in a stove. The open fire on the contrary, darts its ray of heat through the air direct to the person or thing; and thus it is quite possible to bask in the beams of a friendly fire and feel quite comfortable, too, while a volume of fresh air is rolling through the room, which would cool down a stove-heated apartment to a most uncomfortable point.—*Engineer.*

—Mr. De La Rue took two photographs of the solar eclipse of 1869, at intervals of eighty seconds. These, put together in a stereoscope showed a remarkably faithful view of the eclipse, such as could never be seen in any other way. The moon was seen as spherical and not flat, and as if quite near, compared with the distance of the sun; while far beyond was seen the brilliant corona and atmosphere of the sun.

—The character of the solar spots has been curiously proved by taking a photograph of the sun at a time when it showed a well-defined spot and then waiting a single day and taking a second photograph. These two photographs, put together in a stereoscope, gave the appearance of the sun as spherical and not as flat; and it was possible to look down into the cavity of the spot as if into the crater of a volcano. In the same way the faculae or bright spots showed themselves to be higher than the average surface of the photosphere.

—Mr. Symons, an English savant, has been experimenting in temperature in an abandoned artesian well. He found at a depth of 1,100 feet the temperature was 20 degrees higher than above ground. At this rate of increase, the boiling point (210 degrees) would be reached about a mile and a half down.

THE REVOLUTION IN GEOLOGY.—*Science and Infidelity Backing Down.*—Geologists have, for the last thirty years, been insisting on the discrepancy between their theory of the formation of the earth and the Bible account of the creation. The infidel clergy of Europe and America have called the geological theory "science," and have disparaged the Bible as opposed to science. This so-called science, however, is not a well ascertained body of facts, but a hypothesis—namely, that the planetary system originally consisted of a red hot cloud of gas, a nebula which, gradually cooling down when revolving, cast off the planets, and our earth among them, in a gaseous state, gradually condensing into a molten metal, a crust of granitic rocks cooling over the surface and called the primary strata, which crust was gradually washed down by rains and rivers into the beds of ancient seas, thus forming the sedimentary strata composing the solid earth, and leaving the interior composed of a molten granite sea of fire, whose storms cause earthquakes in our floating crust and occasion the eruptions of volcanoes. Assuming this as the mode of the earth's formation, various calculations of the time necessary for the process have been made, and scales of some millions of years, more or less, have been affixed to particular portions of the geologic strata. The popular interest, however, has been attracted more particularly to that part of the series which includes the human race. A number of modern geologists seem disposed to assert the existence of human fossils in strata not less than a hundred thousand years old, by their chronology; and among these, some of our State geologists, at the meeting of the American Association for the Advancement of Science, last year were quite positive in stating this as an ascertained fact; while the State of Illinois has expended the public money in publishing this alleged fact, for the information of its citizens, in the Report of the Geological Survey of that State. The daily papers of many of our cities, especially those which issue Sunday editions, have been jubilant over this alleged contradiction of the Bible—perceiving that, if they can geologically overturn Moses' account of the creation, they will not have much to fear from him theologically.

Christian writers have not generally waked up to the importance of this issue, or perhaps are not generally sufficiently acquainted with the merits of the question. It must however, be fully and fairly met; the alleged facts must be examined, and their logical bearings on the theory ascertained,—for, in these days of free thought young men will read on every subject, and they are liable to the delusion that unanswered objections are unanswerable. The Theological Seminary of the Northwest, at Chicago, (where the attack was made in great force, and the Calavetas skull was exhibited as at least a hundred thousand years old,) requested Rev. Robert Patterson, D.D. to deliver a course of lectures on the Relations of Science to Scripture: which he complied with, by discussions of the Development Dogma, beginning with the Astronomical department, following it into the domain of Geology, and examining the Zoological or Darwinian theory of the development of all animals and men from mineral monads,—conducting the examination from a purely scientific standpoint. He finds the theory in all its parts unsupported by facts, contradicted by the most recent discoveries, disproved by the fundamental principles of mechanics, chemis-

try and hydrostatics, and utterly unscientific.

One of his lectures on the geological divisions of the subject, "The Aqueous Formation of Granite and Consequent Revolution Geology," was published in the April number of the *American Presbyterian Review*. It gives a resume of the most recent discoveries in geology, authenticated by references to the first authorities in Europe and America—discoveries which completely overturn the hypothesis of a globe of molten granite, on which all the infidel attacks on Genesis have been based. These discoveries are attested by such geologists as Sir Charles Lyell, Sir Roderich Murchison Professor Ansted, Messieurs Elie de Beaumont, Rose, Lorby, Daubree, &c.—the very first names in that science. They go to show that there never was any basis of facts for the current infidel theory,—which indeed, never was accepted by Lyell, nor by several other first-class geologists, that granite is not a primary rock, having been found overflowing secondary and tertiary strata; that the three ingredients of which it is composed are of different specific gravities, and so could never have been in a state of igneous fusion, in which the heaviest would have settled to the bottom; that black lead and even fossils have been found in gigantic rocks, which would have been decomposed at a heat less than that required to melt granite; that when the experiment is tried granite will not melt, but the quartz contained in it will be converted into a mineral of a different specific gravity; and finally, and conclusively, granite can be manufactured by the aqueous process.—Messrs. Rose and Daubree having actually made feldspar, the base of granite by mixing kaoline with hot water holding alkali in solution, under pressure; while mica and quartz, the other ingredients of granite, are confessedly of aqueous formation.

Such are the facts exhibited by Lyell in his address to the British Association. but which, strange to say, our American geologists seem not to have heard of. They can hear the first whisper of anything likely to be antagonistic to the Bible;—for instance the Abbeville jaw-bone hoax;—but about such discoveries as these, they remove objections to Scripture, they are most industriously silent. The alleged fundamental fact of the modern geological system proves not to be a fact, and the whole process of the earth's formation is the very reverse of that so confidently asserted as science and as contradictory to Scripture. When will vain man cease to be wise in his own conceit? When will self conceited savants cease to abuse the Bible because it does not agree with their silly dreams, and impossible facts and absurd theories? This science of modern geology dates from 1825, and already a writer in the *Atlantic Monthly* gives us a theory exactly the reverse of this now exploded notion of a cooling globe; our earth, according to him, is heating up, getting ready to melt, and to expand into a nebula. It would not be more wonderful than what we have witnessed, if before twenty years, this should become the creed of scientific superstition and should challenge the Church to reconcile Genesis with this new geology. Scientific superstition is the most Catholic form of credulity.—*N.Y. Observer.*

FACTS ABOUT OUR LIGHT HOUSES.

YEARLY INSPECTION OF THE WESTERN SERVICE.

In a lengthy review of the Western light houses the *London Free Press* says:—

"Once a year the government sends a steamship to every light, for the purpose of supplying the keeper with the necessary stores of oil, &c. This season the tender of the North Shore Transportation Company, which offered the splendid propeller "City of London" for the work was accepted. The oil, which had previously been purchased under contract, was delivered at Montreal, and from that port the "City" made her trip, leaving on July 14th, and completing her task on 4th, instant. In order to thoroughly inform himself on the actual condition of the Ontario light-houses, Wm. Smith Esq., the Deputy Minister of Marine and Fisheries, proceeded with the expedition as far as Collingwood. Mr. Smith is a New Brunswick gentleman, hailing from St. John's, and has had considerable experience in the Lower Provinces. He is a thorough disciplinarian, and though another government official was on board, whose duty it was to inspect the light-houses, yet Mr. Smith insisted on landing at every light-house and making a personal inspection of the premises and the keepers in charge. The information thus acquired will be very useful for future reference by the Department. It is a good sign when the Deputy Head of a Department can step out of the usual red-tape routine, and, though at personal inconvenience, have a thorough inspection of the important matters which come under his control. There was also on board the "Superintendent of the Light-houses" of Ontario, Mr. D. C. Smith, of Odessa, near Kingston. This office has been held by Mr. D. C. Smith (no connection of the Deputy Minister of Marine, however) for thirteen years, during which time a good many dangerous points have been lighted, and his services have, we understand, been approved by the heads of the Department

during the period he has held the position. The quantity of petroleum taken aboard was about 10,000 gallons, the contractor being Mr. L. D. Vincent, of the Sunlight, Works, Petrolia. The whole contract for the Dominion was 32,000 gallons, at 22½c. per gallon, the oil to be delivered as required at Halifax, St. John, N. B., Quebec and Montreal. A few years since the Lower Provinces were supplied with coal oil (oil distilled from coal), while sperm or whale oil was used at many of the western light-houses, at a cost of \$2.25 to \$2.50 per gallon. The finest and best petroleum, the product of our own wells, is now furnished at 22½c. per gallon! It has been found by experience that the Canadian petroleum, when properly refined, gives as brilliant a light as the best sperm, and with but little smoke. We append the following list of light-houses supplied the City, nearly all of which were personally inspected by the Deputy Minister of Marine:—

- ST. LAWRENCE RIVER. Burlington Range Light
- Lachine Canal Light
- Lake St. Louis, Light
- Vessels
- Point Claire Shoal
- Beauharnois
- Grosse Point
- McGee's Point
- Cherry Island
- Cherry Island, Light
- Vessel
- Lancaster Pier
- Cole's Shoal
- Grenadier Island
- Lindoc Island
- Gananoque Island
- Jack Straw Shoal
- Spectacle Shoal
- Red Horse Rock
- Burnt Island
- Wolf Island
- LAKE ONTARIO
- Snake Island
- Nine Mile Point
- False Ducks
- Point Pleasant
- Point Peter
- Scotch Bonnet
- Presqu'Isle (3 lights)
- Gull Island
- Gibraltar Point
- Oakville Harbour
- Burlington Bay

The Department are about to increase the service by the construction of new light-houses at Sulphur Island (near Sault Ste. Marie), Byng Inlet, Mitchell's Point Manitoulin Island and Rondeau harbour. We may here mention that six of the light-houses built at different points in the Georgian Bay are of a very costly, though substantial, character, and have been directed with a lavish hand. These six structures, erected in 1859, cost no less a sum than \$222,563, without the lights or lanterns, which were imported from France at a cost of about \$10,000. To squander nearly \$36,000 each on six light-houses at a part of Lake Huron where there is but little mercantile marine seems to be an absurd waste of the public money. None can deny that these six structures, which are of solid masonry, with walls five feet thick at the base and three feet at the top are splendid specimens of the peculiar style of architecture, and magnificently appointed; but then they are not required to be on so grand a scale. However, there they are, and nothing short of an earthquake can stir them, so solidly are they built, and must remain for ages to tower in their solitary grandeur.

A NEW STEAM CARRIAGE.

The *London Telegraph* describes a new steam carriage which seems destined to play an important part. The first point which would strike anybody who went to see it (says the *Telegraph*) was this—that here was a railway carriage capable of carrying 66 passengers (the average freight of railway trains being 35) and careering at the rate of 18 miles an hour round small garden little more than half an acre in extent. There might have been another carriage to carry as many more passengers added to the train, and the whole train would have been carried round the sharp curves of the small garden with perfect ease. Now, in these days, when we begin to work railways in the heart of our great towns, it is important to be able to adjust the wheels of a train so as to turn it on a curve which has a radius of only 59 feet nor is it less important to attain this object in country places where the nature of the ground renders sharp turns necessary—turns which are now avoided by extensive cuttings, tunnelling and viaducts.

"Nearly all visitors to Paris have been invited to enjoy a fish dinner at Sceaux, and must have observed there the clever but complicated arrangement by which the train arriving at station, turns round in an exceedingly narrow space. It is one of the curiosities of railways. But according to the Fairlie system, exhibited last week in a small garden attached to the Hatcham Ironworks, the turn is contrived by very simple means, may be made in a much smaller space than that which the station at Sceaux fills, and is easily adapted to any ordinary railway system.

"In addition to this, by the adjustments of the weights on the different wheels, Mr Fairlie manages to get rid of an enormous amount of that dead weight which belongs to all existing trains, which wears the rails out very soon, and which add prodigiously to the expenses of every railway. He professes, indeed, to have solved the problem of cheap railway—enabling us to have a permanent way of much lighter construction than is usual, and to provide for carriage along it at a very great saving of

cost. Nothing but actual experience will prove whether or not his anticipations are well founded; but at least he seems to be on the fair way to success, and by the exhibition of the prowess of his carriage last week, has established a strong presumption in his favor."

A SCRIPTURE COINCIDENCE.

Mr Burt, in his book, "The Far East," just published, thus notes a remarkable Scripture coincidence:—

"The tourist in Egypt, looking for Bible illustrations is likely to be disappointed when he finds no 'bulrushes' or 'reeds,' answering to those spoken of in the history of the infant Moses. No sign of flag, reed, or other aquatic plant appears, either along the Nile or elsewhere. Yet there must have been such plants in former times. The monuments depict them in great variety—the lotus being a favorite. And the rolls of papyrus found in the tombs testify to the existence of such plants, the papyrus having been made from the bark of the paper reed. How interesting to the Scripture student to find that the disappearance of these plants were specifically predicted by the Scripture writers. Says the prophet Isaiah: 'The reeds and flags shall wither; the paper reeds by the brooks, by the mouth of the brooks, and everything sown by the brooks shall wither, be driven away, and be no more.'

"But the question comes, why do not aquatic plants now grow in Egypt? Are not the physical conditions now existing in this country the same which have always prevailed? And does the Divine fiat now resist natural laws, for the fulfilment of prophecy? I answer that aquatic plants—which, as Herodotus testifies, were extremely valuable—were reared, in the time of Egypt's prosperity by artificial means—involving the preparation of reservoirs and 'brooks'. Thus, too, by means of 'ponds' and 'sluices,' the fish were multiplied. And the prediction of Isaiah relates to the destruction on the nice arrangements of artificial life on which depended the country's high prosperity. And how entirely natural that the bathing place of Pharaoh's daughter should be a cultivated garden bordering the Nile, where seclusion could be had."

Rebiew.

THREE "SERMONS ON ERRORS OF PLYMOUTH BRETHREN," by the Rev. JAS. CARMICHAEL.

Such is the title of a pamphlet just issued from the press, and which we have read with much pleasure and profit. A great number of books, tracts and articles in the papers have appeared of late, professing to expose the errors of the Plymouth Brethren; but they have generally proved so devoid of ability, that the very mention of a fresh production on the subject has caused many to declare at once they will not even look at it. We would advise none so to speak of the treatise now before us—for it will be found, we think, to contain a most complete summary of the prominent doctrines of the would-be so-called sect of "Christians."

It is evident Mr. C. has taken considerable pains with these sermons, for, in a most Christian like manner, using no harsh epithets, he has proved from scripture what are the errors of the Plymouth Brethren. Mr. C. has very wisely not ventured to advance a single doctrine of the Plymouth Brethren without mentioning where such could be found in the writings of their acknowledged leaders. In a most masterly style he has taken up these doctrines, one by one, and shown the entire system, though bearing the semblance of excessive piety, to be extremely pernicious, tending to destroy the time-honoured and blessed tenets of the faith once delivered to the saints.

Mr. C. says he found much difficulty in preparing these sermons, of which the pamphlet before us contains the substance, from the fact that the Plymouth Brethren have no definite creed. For their benefit, but especially to warn those not connected with them—for we really are of opinion that many persons who have joined this "sect" have not the slightest idea what they are expected to believe—he has drawn up one, with which he concludes his book.

The members of our church should feel deeply grateful to Mr. C. for the fearless, able and kind manner in which he has come out to warn them from being led astray from the good old path.

We sincerely hope this pamphlet will find its way into the hands of all our congregations—for we feel assured those who will carefully read it will be content to abide by the teaching of their own faith by our ministers, and shun the possibility of ever being induced to adopt such dangerous errors as are held by the Plymouth Brethren.