

graphical names, their meaning, origin, derivation, etc. As it is desirable that the annual reports should be as complete as possible, and as a large amount of material is scattered through American journals, and particularly through the publications of the State surveys and historical societies, which are difficult of access in Europe, American authors can materially help Professor Egli by sending him copies, or at least the titles, of their remarks bearing on this subject.

— Last autumn an attempt was made, says *Nature*, to bring live cod from Iceland to Norway on board smacks, and six thousand fish were brought over to Bergen successfully. Here, however, many of them died, on account of the basin in which they were kept until the sale could be effected being too small. This year fresh attempts will be made.

— Dr. Asa Gray has been seriously ill for some weeks.

— The second meeting of the International Copyright Association was held in Boston, Jan. 24, President Eliot in the chair. Secretary Estes announced that satisfactory progress had been made in the movement to obtain the recognition of authors' rights in their literary work. A resolution was adopted approving the principle involved in the amendments of the Chase Copyright Bill proposed by the executive committee of the American Copyright League and the American Publishers' Copyright League, and requesting Senator Chase to adopt these amendments, with such verbal changes as may be recommended by the council of this association and adopted by the committees mentioned. A resolution was also passed asking the chairman to appoint a sub-committee to confer with Senator Chase regarding these amendments. After a general discussion, in which Messrs. Houghton, Scudder, Ticknor, Ernst Lothrop, and others participated, the meeting adjourned.

— *Nature* comments on French architects as seeming to attend to the decorative rather than the useful parts of the buildings they design. The architect who designed the new medical school in Paris took so little pains about the distribution of the water-pipes, that in very cold weather the laboratories (chemistry, physiology, bacteriology, experimental pathology, etc.) are wholly deprived of water. Recently the water in all the pipes was frozen, so that not a drop of water was available in a single laboratory. Of course, every one connected with the school complains that work under such conditions is nearly impossible. The new Sorbonne will be a handsome building, but, unfortunately, the work is soon to be stopped owing to lack of money. The ornamental part of the building is finished, but the useful part has not yet been begun.

#### LETTERS TO THE EDITOR.

\* \* \* Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.

Twenty copies of the number containing his communication will be furnished free to any correspondent on request.

The editor will be glad to publish any queries consonant with the character of the journal.

#### The Snow-Snake.

In a letter (*Science*, xi. No. 259) pointing out certain errors in an article on Pocahontas, referring especially to two games mentioned therein, Dr. Beauchamp says, "The children indoors were playing at *gus-ha'-eh* (or 'peach-pits'), it is said; but where the peaches came from at that early day is not explained." Yet the doctor fails to give us a hint as to the true rendering of this word, and the proper name of this game. This game was played generally with 'plum-pits,' though sometimes with small pebbles, etc.; but, as the pits were more convenient and symmetrical, they were preferred, and, being used in most cases, they gave their name to the game, namely, 'plum-pits,' or, better, 'pit-betting.'

In regard to the use of the snow-snake among Powhatan tribes, Dr. Beauchamp remarks that "it is not wise to place a Northern game so far South," evidently wholly oblivious of the fact that 'betting' with the *u-tră-hwă'-uě* ('snow-snake') was a favorite outdoor sport of the Carolinian and Virginian tribes of Iroquois, — too important offshoots of the family to be overlooked, — and who

were situated farther South than the Powhatans. The doctor should have omitted the *r* in his orthography of the word *kă-wher'-ta* (*kă-whē'-ta*), as it does not occur in the speech of the Onondagas of the present time.

J. N. B. HEWITT.

Washington, D.C., Jan. 23.

#### The 'Act of God' Once More.

MR. W. W. NEVIN'S interesting note (*Science*, Dec. 2) as to the Mexican doctrine of 'fuerza mayor' emphasizes my point. The Roman law having always been, as it still is, the law of continental Europe, it was inevitable that such American colonies as were settled from the continent should retain the doctrine of the 'act of God,' and that when the Spanish brought it to Mexico, and implanted it in a community saturated with superstition, it should have augmented quite as rapidly as its adumbration has waned with us, until even so anticipated an occurrence as the flooding of a river in a rainy season should relieve from the obligation of a contract. But United States capital and energy are speedily civilizing Mexico by building railroads within her territory, and doubtless we may expect a very considerable attenuation of the doctrine at no distant day. I do not think all of *Science's* correspondents share in the good faith of Mr. Nevin. It does not impress me, for example, as in good faith that one of them asks (*Science*, Nov. 25) whether, had a certain car-stove he specifies upset and ignited a certain train, it would have been an 'act of God;' or that another (*Science*, Dec. 16) demands whether I propose that the railways of this Republic be operated by Mexican law. But in good faith, nevertheless, will I answer both these questions. Up to the date of the latest of the five accidents I specified, no practicable means of heating cars had been invented except car-stoves. Steam-pipes from the engine had, indeed, been proposed for twenty years, but no coupler-joint had been perfected, and no means of keeping the steam from cooling, sufficient to overcome the extreme coolable surface of a pipe serving long trains in the severe weather of the mountains, or the low temperatures of the North and North-west, devised. At present, however (stimulated, in fact, by the very casualties I specified at Republic and White River), there are certainly three or four of these contrivances which have been tested and found practicable. Therefore, had your correspondent's stove overturned and partially roasted him, he would certainly have been deprived of the opportunity of asserting that he had been roasted by an 'act of God,' since the company could have availed itself of that particular progress of applied science which had invented a heating apparatus which in case of accidents would not induce combustion of the train. As to the second question, I say, No, and Yes. I proposed no Mexican laws for regulation of our own railroads, but I did question whether an already well-known rule of law limiting the responsibility of the employer for mental conditions of the employee was entirely without bearing upon a certain state of admitted facts. The common law expressly declares that there are possible conditions of an employee's mind which discharge the employer. An employee who, in ejecting trespassers, becomes vindictive, passionate, or wilful, and on that account employs a surplusage of force, so acts at his own and not at his employer's peril. I therefore suggested a question whether an entirely unforeseen and instantaneous absence of mind on an employee's part was any more within his employer's control than a burst of passion.

Again: it seems immaterial to my point that different investigators, tribunals, or commissions may receive different reports of the causes directly forwarding a casualty. A question of precedence between parallel proximate causes is always an exceedingly nice one. Indeed, the only report of a railway accident likely to be substantially unreliable is the newspaper report; and this not necessarily because the newspaper is biased against the company, but simply because newspapers are at the mercy of their reporters, precisely as railway companies are at the mercy of their employees. The reporter first on the ground takes the impressions of the bystanders, and reconciles them somehow out of his inner consciousness. The only persons present who possess the slightest actual knowledge as to the why and wherefore of the catastrophe are the employees of the company, and they are silent. They have their

duties none the less rigid in case of accident than when all goes well, and are at their posts, saving life and property, and preventing further destruction by signals, and have neither the time nor the right to instruct reporters; though, I may add, their silence is always taken as a final confession of guilt on the part of the company. Indeed, on reading the average American newspaper accounts of railway disasters, I have repeatedly found myself exclaiming, "Why did not this dastardly and murderous company complete the catalogue of its crimes by braining the survivors with crowbars, and adding to its ill-gotten wealth by impartially pillaging the dead bodies of all its victims?" I once had occasion to investigate an accident which derailed a way-train, throwing it over the double track and immediately before an express-train coming in the opposite direction, almost exactly upon the time when the express-train was due at the point where the derailment occurred. Upon the trial of a resulting lawsuit, the crew of the wrecked train testified unanimously to the fact: the company's time-table and the registers of the train-despatchers at both ends of the division (which could not have been disturbed without throwing the whole business of the road into chaos) proved it. But some passengers whom the unusual sensation of escaping from destruction had unnerved, and to whom a series of crowded and unique experiences had made a few moments seem like hours, testified that there had been ample time to flag the express-train (some of them putting the interval at several hours); and the jury unanimously believed the passengers as against the company's witnesses, and thus morally convicted the employees of perjury themselves under orders, in order to mulct a corporation in damages. Juries from the interior do these things as regularly as the opportunities present themselves; and the excuse lies, not in the opportunity, but in the nature of things, and in the axiom that 'bigotry' and 'ignorance' are synonymous terms. But unfortunately there is no such palliation or excuse for the ready writers and composers of leaders on the staff of our great newspapers: for these are cultivated gentlemen, who know perfectly well that railway corporations avoid accidents as they avoid bankruptcy, and enforce a ceaseless and enlightened vigilance to prevent them; that railway companies do not practise small economies, do not risk bankruptcy (for a single great accident, like that at Revere, may bankrupt, as that one actually bankrupted, an entire corporation) for the sake of a few dollars, yet, knowing this, persist in telling the public that railways are careless of public rights, and indifferent to human life. To be sure, these gentlemen do not second the religious press in advising that locomotive-engineers and East River pilots read their Bibles when on duty, — a habit which would doubtless largely increase the perils of steam-transportation; but they often, as we shall see, make suggestions quite as invaluable.

On the evening of Tuesday, Dec. 20, 1887, there *was not* a bloody and terrible disaster on the Elevated Railroad in this city. A train packed with human beings *was not* precipitated into a narrow street below, crowded with men, women, and children; horses, trucks, and vans. The wheels of a particular train, upon that occasion, left the track, but the prudence and skill of the builders of the elevated structure vindicated themselves: the jar never deflected it an atom, the stout sleepers held the train, and nobody was scratched. But no one, on reading the leaders printed in the daily newspapers of this city, would have supposed that a terrible calamity had been averted. Had that entire train, full of human beings, been precipitated upon these passing men and women, horses, trucks, and vans, the daily newspapers could not have censured the Manhattan Elevated Railway Company more emphatically than they did; or drawn for the occasion more vigorous and virtuous lessons of the greed of railway corporations, and of the woes of a long-suffering public. While every practical railway man in the country must have admired the perfect and almost automatic construction which saved so much waste of life and property on that occasion, not a newspaper commended the management, but rather took an additional opportunity of vilifying railroads in general, and the Manhattan Railway Company in particular. I did not read all the eloquent leaders with which the press improved the occasion of the non-occurrence of an appalling disaster on the New York Elevated Railroad; but I remember one, that, after feelingly dilating on the ghastly picture of gore and agony which *was not* presented on that occasion, exclaimed, —

"We must require of those who undertake such responsibilities absolute security, not a pretty tolerable degree of safety. It is not enough that accidents shall not be frequent: they must be impossible. The system must be managed on the principle that there are no railroad accidents; that what are called such are due to some species of neglect, which truly competent management could and would have prevented" (*Commercial Advertiser*, Dec. 22, 1887). If the gentleman who wrote those words will continue to walk uprightly and piously before men unto his life's end, will read his catechism and endeavor to reflect its precepts in his daily gait and conversation, he will doubtless eventually proceed to a vicinage beyond this fitful fever of life where accidents are 'impossible.' I doubt if he finds it upon this poor planet. But, although perfectly innocuous to those as clever as himself, is it not manufacturing a dangerous public sentiment — and one as unpatriotic as it is dangerous — to constantly kindle and fan the impression, that, of all the necessary industries which civilization requires, the industry of maintaining a railway, or any thing that runs by steam, is a greedy and despotic power, that lives by crushing not only the bones of passengers, but the civil liberties of the people? If it is, and if it is wrong to do dangerous and unpatriotic deeds, then the gentlemen who write these feverish and furious leaders — unless they repent — will certainly never behold the land where no accidents happen. I may add, perhaps, as germane to my text, that the newspapers all appear to agree, that, if nobody was killed the other evening at Franklin Street, it was not the fault of the Manhattan Elevated Railway Company, but a genuine 'act of God.'

"In a recent number of *Science*," says the *Evening Post*, "Mr. Appleton Morgan has published an article, entitled 'The Act of God and the Railway Company,' in which he tries to palliate or even to deny the responsibility of the corporations for most of the serious railroad accidents of the past year. We have of late become quite accustomed to such pleas on behalf of the Anarchists; but when the same line of argument is invoked in favor of a railway company, by a lawyer of Mr. Morgan's standing, it is a surprise, and by no means a welcome one." I myself do not see what I have to do with the Anarchists, or the Anarchists with me. An Anarchist is one who intrudes upon the still unsettled problem of labor *versus* capital, and proposes solving it by eliminating the element of labor, and substituting cataclysm therefor. The idea of cataclysm may have suggested a railway accident, otherwise the *Post's* correspondence of ideas does not impress me as important. Proceeding: the *Post* is astonished that I should have given an account of the Forest Hill disaster at variance with the official report of the Massachusetts Board of Railway Commissioners who investigated it, saying, "We do not understand how it was possible for a writer of good standing to disregard these facts. Either he must have presumed on the ignorance of his readers, or else he never took the trouble to look into the matter itself. The latter is perhaps the more charitable supposition. But it need hardly be said that for a writer in a scientific periodical either excuse is equally weak." Doubtless the *Post* did not, at that writing, understand how anybody could prefer the report of experts to the official reports of non-experts upon so complicated an affair as a railway accident. But it ought to have had some glimmering of an idea as to how such a preference was possible, a day or so later, when itself printed prominently, and without comment, the following item: "After a number of weeks spent in the investigation of the Chatsworth train-wreck, the Illinois Railroad and Warehouse Commission has submitted to Governor Oglesby a report stating, that, in their opinion, the 'train would not have been destroyed if the bridge had not burned before the train reached it.'" Before so masterly an analysis of the casuistry of proximate causes, no wonder the *Evening Post* was speechless. The Illinois Commission found that the Chatsworth disaster would not have happened had the bridge fallen before the fated train reached it. Their Massachusetts contemporaries reported, that, had the bridge-inspector been discharged before he reported the bridge safe, the fated train would never have attempted to run over it. I do not, upon the whole, see much to choose between them. As I write, word comes that the Minnesota Board of Railway Commissioners, as if emulous to compete in usefulness with its compeers of Illinois and Massachusetts, had decreed that no upper berths in Pullman sleeping-coaches must be

made up until actually sold to passengers, which would oblige sleepy passengers either to sit up during transit through that intelligent commonwealth, or else sleep with entire indifference to the dusky porter and the possible new-comer, and sundry joint operations not, as most of us know, over-conducive to balmy and seductive repose.

What, then, we really require is not a new law, or a new custom, or a new statute, but an infallible foresight and judgment. Our newspaper leader-writers are not, unfortunately, the only gentlemen in the country who can prophesy things after they come to pass. There are plenty of gentlemen, equally competent in that regard, now employed upon the railway lines of this continent. If, however, a gentleman could be found with the much rarer gift of prophecy as to things to come before they actually transpire, I imagine that it would be difficult to name a salary he could not command from a railway company. Indeed, neglect by a railway company to secure the services of such advance prophet ought certainly to be such a negligence as would settle the company's liability entirely beyond all possible legal inference. There is nothing upon which newspaper comment is more familiar than the well-worn theme of the fallibility of human testimony: even four inspired Evangelists, they tell us, could not agree upon a given state of facts. They press this fallibility against railroad companies. Do they ever press it in their favor? That the average newspaper should experience a difficulty in conceiving that every railway accident was beyond the company's control does not amaze me; but I admit to some surprise at the following criticism upon my paper, in the *Railroad Gazette*, a most valuable and intelligent commentator, usually, upon railway affairs: viz., "At Republic, he [myself] says the man sent with a red light failed to carry it; no mention is made of the fact that two men failed in their duty to send him. Concerning Forest Hill, Mr. Morgan makes the original assertion that no appliance in the company's power to provide was lacking; which, perhaps, must be admitted as true, as a competent bridge-engineer (which the company neglected to provide) could not be called an 'appliance.'" So far from exploding, this appears to me a much stronger putting of my point than I was equal to on the facts as they reached me. According to the *Gazette*, the fault at Republic was not that the one red-light man did not go ahead, but that two officials did not send him. So, not one human brain, but two, failed to do their duty. If, as I argued, a corporation cannot control the deflections of even one human brain, how can it control the deflections, independent and coincident, of two? The fact that one man was absent-minded, I held to be beyond the power of a corporation to prevent. But the utterly unprecedented coincidence of two brains at the same moment, in the same spot, and under the same circumstances, forgetting their duty, — and that duty their identical duty to do identically the same thing, — does really seem to me to be about as nearly an absolute act of God as any case of which most experts could conceive. And, again, supposing that the inspector of bridges of the Boston and Providence Railroad was incompetent: here, again, a human brain was at fault. If it can be shown that the Boston and Providence Company knew him to be incompetent, or had discharged a competent bridge-inspector to deliberately install an incompetent one, that would have been another matter. But it does not so appear, neither does it appear that any bridge inspected by this particular bridge-engineer had previously fallen. Speaking of this unfortunate bridge-engineer of the Boston and Providence Railway Company, the Massachusetts Board of Railway Commissioners says, "This man had been in the employment of the corporation for a long series of years, his trade was that of a machinist, he had not been educated as a civil engineer, and the management had abundant reason to know that he was not qualified, and had had no opportunity to qualify himself, to do the work assigned to him with reference to this bridge." *Ergo*, had he been discharged prior to the accident, the accident would not have happened. Perhaps not. If a railway company could only foresee accidents, could know in advance just exactly when one of its bridges was going to collapse, doubtless it could avert the disaster by discharging the bridge-inspector, so that he could not report that bridge secure, so that no train would try to cross it (which would resemble, indeed, the intrepid mariner who warded off a cyclone by collaring the barometer and holding it upside down).

But, seriously, should our railway companies every now and then discharge their old, tried, and faithful employees — men "who had been in the employment of the corporation for a long series of years" — lest they should at some time or other in the future become unfortunate, unfaithful, or careless? Perhaps a man not "educated as a civil engineer" could not possibly, after having been "in the employment of the corporation for a long series of years," come to know as much about railway-bridges as if in his youth he had spent a couple of years with a tutor, or in a polytechnic college. Does not the *Railroad Gazette's* statement of the causes of the Forest Hill accident exactly carry out my own criticism; namely, that a human brain, trusted and unusually accurate, for once failed to do its work?

APPLETON MORGAN.

New York, Jan. 12.

### The Pronunciation of 'Arkansas.'

J. OWEN DORSEY's article in *Science* for Jan. 13, re-opening the question of the pronunciation of 'Arkansas,' necessitates a few words in reply.

I fear that Mr. Dorsey fails to catch the spirit of my plea for the local and historically correct pronunciation, when he dwells upon the various vowel-sounds of *a*, and accuses me of pleading for 'consistency' in the pronunciation of this most inconsistent Anglo-American language of ours. Such an act upon my part would certainly be in opposition to my favorite hobby of observing and collecting data upon the differentiation in orthography, pronunciation, and vocabulary, under climatic and industrial conditions, of the English language in the United States.

The broadening of *a* into *aw*, the Indian origin, and the euphony of the word to foreign ears, are questions of the least import in the pronunciation of the word 'Arkansas;' for the first of these is probably French-Indian or a secondary climatic change visible in hundreds of other words, such as 'Wabash,' 'Ouachita,' 'Waukeshah,' etc., and which neither Mr. Dorsey nor I, nor any one else, can stop, more than we could put a brake upon any other evolutionary biologic or linguistic process. The evil effect that would follow the use of individual choice in the euphonious pronunciation of geographic terms is self-evident; and, since these Indians had no phonetic method of recording their tribal names, we must seek the approximately correct pronunciation of the word 'Arkansas' in the French language, in which it was first phonetically recorded. Surely, Mr. Dorsey cannot find there any authority for the pronunciation of the final syllable 'saas,' or omission of the final *s*. Certainly none of the examples given by him would authorize this, nor any of the following historical methods of spelling the word, which Mr. Dorsey seems to have overlooked: Joliet (1672), 'Kansa;' Hennepin's map (Utrecht, 1697), 'A Kansa;' Dumont de Montigny's map (1753), 'Arcanças;' Le Page du Pratz (1758), 'Arcancas;' and many other later French writers, 'Arkansas;' all of which, in good French, can only be pronounced 'Arkânsâ.' I think no further examples are necessary to show that the original French pronunciation was much nearer 'sa' or 'saw' than 'saas.'

But this is only one, and the least, of the many reasons why the local pronunciation should be preserved. The present territory of the State of Arkansas was first settled by a colony of Frenchmen, sent out by the celebrated financier, John Law, about the year 1720. They settled in the country of the 'Arkansas' Indians at Arcansas Post, around which their descendants have lived until the present day, and which was the nucleus of all the early Anglo-American migrations into Arkansas, and from whom they got their pronunciation of the French geographic nomenclature. These people still pronounce the word 'Arkânsâ' and 'Arkansaw.' They can see neither logic nor reason in 'Arkansas.' Nor are they to be blamed that they memorialized the Legislature of the State through the Historical Society of Arkansas a few years since, when exasperated by the attempts of foreign euphonists to force the 'saas' pronunciation upon them, and to ridicule the only historical and phonetically correct pronunciation of the word, to set the matter at rest by legalizing the old pronunciation of the word, which was done by an almost unanimous resolution of the State Senate.

Have the customs and rights of the millions of Anglo-American and French-American pioneers and descendants in this region no