crowds that attend the preaching of the "evangelists," as they are called, notably Moody and others, and this may be taken as a fair sample of the sensational preaching of to-day. But we have many varieties of style, Beecher construction when the presence of the presenc Beecher occasionally startling us with some new idea or theory; Joseph Cook with his five-footed words, talking of "full-fiedged souls" and "environments," &c., &c., until we wonder how many, or rather how few, of his audience can follow his discourse intelligently; Dr. Parker, and others. But amongst them all. Mr. Talmage access to hold a magnetic of multiparity.

all, Mr. Talmage seems to hold a monopoly of vulgarity. The series of sensational sermons on the "Night Side of New York Life" which the Rev. Mr. Talmage has been preaching of late, detailing his visits to some of the dens of infamy abounding in NewYork, and which are more or less incidental to all great cities, are the latest novelties in sensation. We have referred to these sermons on a previous occasion, questioning the propriety of their delivery, and we again ask "*cui bono ?*" We were told on one occasion that "in spite of stormy weather an immense crowd was present, and the interest remained unabated." We can understand that the immense crowd was probably there induced by prurient curiosity, and that the preacher, as is his wont, did not fail to "harrow up their souls" by his glowing recital of a chapter of horrors. We may take it for granted that Mr. Talmage believes that his series of sermons has acted as a moral earthquake, for he says that "Satan is in a paroxysm of excitement" and that "parrly all his (Satan's) establishments are paroxysm of excitement," and that "nearly all his (Satan's) establishments are bankrupted." We might be glad to know that Mr. Talmage's sermons had such a salutary effect, "a consummation so devoutly to be wished," but we are compalled to except the except the series of the matrix much form

compelled to accept the announcement *cum grano salis*, we very much fear that for all Mr. Talmage's diatribes "ginger will still be hot in the mouth." Apart from the very questionable subjects which form the basis of this series of sermons, vulgarity and self-conceit are eminently conspicuous, and the matter is not much mended by the fact that the Tabernacle is crowded. and series of sermons, vulgarity and self-concert are emmenty completioned, and matter is not much mended by the fact that the Tabernacle is crowded, and When that the said crowd laughs and applauds by turns as the actor moves it. When all this flippancy and irreverence is set forth Sunday after Sunday, with all the elocuted and the said crowd laughs are the set of the sunday after sunday. eloquence of which Mr. Talmage's rhetorical arms and persuasive legs are capable, and as we are told that the church is crowded, we are forced to the conclusion that it does not say much for the mental calibre of the people of Brooklyn who can be amused by such ribaldry.

It has long been the custom of Mr. Talmage's congregations to laugh at or with him, but it becomes a question whether his weekly buffooneries are not fit

"For scorn to point its fixed, unmoving, finger at." objects

As Mr. Talmage told his audience that some of Satan's establishments are As Mr. Talmage told his audience that some of Satan's establishments are still in full swing, we may conclude that this winter will scarcely see their extinction, but we may, perhaps, safely predict that next season may witness their complete ruin. Surely those who have had the benefit of hearing these densities described by Mr. Telmage's arms and least will perform again place them. dens described by Mr. Talmage's arms and legs will never again place them-dens described by Mr. Talmage's arms and legs will never again place them-selves in the path of temptation. The gambling dens and other resorts of infamy and vice which Mr. Talmage has so vividly described may pass away, but meanwhile the Brooklyn Tabernacle will be crowded and the limbs of Mr. but meanwhile the Brooklyn Tabernacle will be crowded, and the limbs of Mr. Talmage will vie with Mr. Arbuckle's silver cornet in furnishing a less costly,

We have heard somewhere about the thunder of the Church, and presume and let us hope a more harmless, entertainment.

it must be very serviceable, as it must so clear the air for a time. Here, for weeks has Mr. Talmage been thundering, till people wondered if the roof of the Tabarrada mag acfect and Mr. Talmage smiling as if his face was smeared weeks has Mr. Talmage been thundering, till people wondered if the roof of the Tabernacle was safe; and, Mr. Talmage smiling, as if his face was smeared with honey, folds his hands, and softly seems to say, "Thank heaven, we've had a lovely storm." Talking about thunder; in "Festus," a poem of the last generation, one of those strange, odd things that give your brain a twist, there was a persone which was rather obscure but now it is perfectly intelligible was a passage which was rather obscure, but now it is perfectly intelligible.

Somebody says to another :---

You look as though you fed on buttered thunder."

Now, with all respect, Mr. Talmage must be the very man. You have Now, with all respect, Mr. rannage must be the very man. You have only to read his sermons (happily we are spared from hearing them)—really so hoisy, and yet meaning to be soft—to be sure that what he lives and thrives hoisy, and yet meaning to be soft—to be sure that what he lives and thrives hoisy, and yet meaning to be soft—to be sure that what he lives and thrives hoisy, and yet meaning to be soft—to be sure that what he lives and thrives hoisy, and yet meaning to be soft—to be sure that what he lives and thrives hoisy, and yet meaning to be soft—to be sure that what he lives and thrives hold a deal of good. They thigh that the piety like physic wants shaking to have its They think that true piety, like physic, wants shaking to have its rect. We have in our time seen Mr. Talmage preach, and have been or good. They think that the properties of the preach, and have been proper effect. We have in our time seen Mr. Talmage preach, and have been reminded of a circus and the riding in the ring; the principal rider does all manner of wonders, whilst cantering and galloping, and going through his manner of wonders, whilst cantering and galloping, and going through his paces; he is determined to outdo all that's been done before him, and for this paces; he is determined to outdo all that's been done before him, and for this purpose goes through all sorts of manœuvres. In Mr. Talmage's own words on Sunday last, "Ring the bell, and let the curtain drop." We remember the description of the preaching of the poet Crabbe in

We remember the description of the preaching of the poet Crabbe in Rejected Addresses : "In the view of life and manners which I present, my

clerical profession has taught me how extremely improper it would be, by any allusion however slight, to give any uneasiness, however trivial, to any indi-vidual, however foolish or wicked."

This side of the question Mr. Talmage has certainly overlooked.

Ints side of the question Mr. Talmage has certainly overlooked. Mr. Talmage rather belongs to the alarming or threatening school, but his sermons are poor "dumb dogs" after all; we have said that Bishop Latimer was as outspoken a preacher as ever smote a pulpit, but he was of such a nature that it attracts us even now notwithstanding his rough style. Then again with reference to the revivalism movement of the present day

Then again with reference to the revivalism movement of the present day, are we to regard it as evidence as a "lapsed multitude" who have been un-influenced by the pulcit influenced by the pulpit—over whom the pulpit has ceased to have effect, and who are now sought to be wrought upon by sensational converted clowns, and re-baptized prize-fighters, thieves turned theologians, and convicts on ticket-of-leave siring their new convictions and all sorts of other forms of attraction re-baptized prize-fighters, thieves turned theologians, and convicts on ticket-of-leave airing their new convictions, and all sorts of other forms of attractive programmes? What does this "fast" life introduced into the pulpit mean? How much more frequently do we discuss the *how* than the *what* of a sermon; how much greater a stress do we lay on the hold the sermon has taken on us than the hold we have taken of the sermon. We now more fre-quently go to church in the critical than in the receptive mood. The preaching needed is straightforward practical, manly talk, even if it

The preaching needed is straightforward practical, manly talk, even if it be sensational in the best sense of the word, and happily we have some such preachers in our midst. In the contest with arts, facts, systems, theories, cus-is a favourite with the ladies.—N. Y. Graphic.

toms, conventionalities, and sins, the pulpit has exercised a power which hatred of light, love of novelties, doubt, criticism, temptations to neglect and disregard it, have been unable on the whole greatly to affect. Culture has decried it, science has opposed it, socialism and communism have resisted it, doubt has assailed it, carelessness and love of self have laid their deadening weight upon it; but it has triumphed over all.

Sound preaching is yet a power in human life, although there have arisen so many new claimants for the possession of a foremost place. The forms of churches may change, their relations to states may be altered, their trials may multiply, but faithful preaching will remain an undying influence.

## GEOLOGICAL RELATIONS OF THE ATMOSPHERE.

## BY T. STERRY HUNT, LL.D., F.R.S.

In our News Summary of last week we referred to a paper on "The Atmosphere," recently read at Paris, by Dr. Sterry Hunt, we now give a more 

sition of rocks through the influence of the atmosphere, resulting in the fixation of carbonic acid and oxygen, and discussed the question at length, with arithmetical data. He inquired farther into the fixing of carbon from the air by vegetation, with liberation at the same time of oxygen both from carbonic acid and from the decomposed water, the hydrogen of which, with carbon, forms the bituminous coals and petroleums. It was shown that the carbonic acid absorbed in the process of rock decay during the long geologic ages, and now represented in the form of carbonates in the earth's crust, must have equalled, probably, two hundred times the entire volume of the present atmosphere of our earth. This amount could not of course exist at any one time in the air; it would, at ordinary temperatures, be liquefied at the earth's surface. Whence came this vast quantity temperatures, be inducted at the cartin's sufface Whence came this vast quantity of carbonic acid, which must have been supplied through the ages? The hypothesis of Elie de Beaumont, who supposed a reservoir of carbonic acid stored up in the liquid interior of the planet, was discussed and dismissed. The gas now evolved from the earth's crust from volcanic and other vents was probably of secondary origin, and due to car-bonates previously formed at the surface.

The solution of the problem offered by the author is based upon the conception that our atmosphere is not terrestrial, but cosmical, being a universal medium diffused throughout all space, but condensed around the various centres of attraction in amounts proportioned to their mass and temperature, the waters of the ocean themselves belonging to this universal atmosphere. Such being the case, any change in the atmospheric envelope of any globe, whether by the absorption of the disengagement of any gas or vapour, would, by the laws of diffusion and static equilibrium, be felt everywhere throughout the universe, and the fixation of carbonic acid at the surface of our planet would not only bring in a supply of this gas from the worlds beyond, but by reducing the total amount of it in the universal atmosphere, diminish the barometric pressure at the surface of our own and of all other worlds.

This conception of a cosmical atmosphere, of which our own forms a part, ins conception of a cosinical atmosphere, of which our own forms a part, is not new, but was put forth by Sir William R. Grove in 1843, and is developed in the very learned and ingenious work of Mr. Mattieu Williams, on "The Fuel of the Sun," and has lately been noticed by Dr. P. M. Duncan in its geological bearings. Ebelmen, in 1845, pointed out that the greater weight of an atmos-phere charged with carbonic acid would increase the temperature due to solar distance at the applies and cardine the temperature of the content of the solar of the s radiation at the earth's surface, and greatly modify atmospheric phenomena.

Tyndall, by his subsequent researches on radiation, showed that certain gases, in amount too small to affect considerably the barometric pressure, might influence powerfully climatic conditions, and suggested that in the former presence in the atmosphere of moderate quantities of a gas like carbonic acid, might be found a solution of the problem of the climates of former geologic According to the author, the amount of this gas, which, since the advent ages. of life on our earth, has been substracted from the universal atmosphere, although it may not have sufficed to diminish by more than a small fraction the pressure at the earth's surface, would account for all the conditions of geological history so far as temperature and climate are concerned.

He maintains that while we have evidence of a warm or subtropical climate prevailing over the Arctic regions from the carboniferous down to lower cretaceous times, and a gradual refrigeration up to the temperate climate of the miocene age, we had for the first time in the pliocene age the evidence of Arctic cold, which, with some variations, has continued until now. Since that date geographical variations have caused, and may again cause local climatic changes of considerable magnitude. But no such changes could permit the existence over continental areas within the Arctic circle of such tropical vegetation as we know to have once flourished there. Geographical changes, as J. F. Campbell, Dawson and others have so well pointed out, might lift large areas into the region of perpetual frost, and thus give rise to local glacial phenomena, and may, moreover, account for considerable local climatic varia-tions at the sea-level since the pliocene age. We cannot, however, account in this way for the warmer climatic of manifest and but must each for their cause S. this way for the warmer climates of previous ages, but must seek for their cause in the former constitution of the atmosphere.

Touching the suggestion that former climatic changes were due to a dis-placement of the earth's axis of rotation, the author expressed the opinion that it is irreconcilable with the fact long ago insisted upon by him that "the direction of the Arctic currents, which are guided by the earth's rotation, appears, from the distribution of marine sediments, to have been the same since very early periods." Dawson has reinforced this argument by recalling the fact that the southward migration of successive floras shows, in like manner, that from the Devonian age the general course of oceanic currents, and conse-quently the position of the earth's axis, have not changed.

 $E \mathcal{F}$ EΜ ENS CLOTH COA TS INEM ED,ROP E Ĵ. Ę RE LDS 9 KEL

## REE