

the corona is told in the speeding moments of an eclipse, and strong must be the nerve and clear the judgment of the astronomer who can make his observations during the critical moments of darkness with an undisturbed mind. Fortunately, however, for astronomy, "the camera has no imagination, and the discoveries of the photographic film, however numerous, are not of a nervous character."

VI. The Hungarian astronomers send their contribution to 1893—late photographs of the moon, developed by the astronomer-photographer of the Pesth Academy, exhibit some unaccountable peculiarities. The plate shows hundreds of walls or embankments, seemingly about 200 feet high and from 125 to 200 yards in width on top. They run parallel to each other, and appear to be from 1,000 to 1,300 yards apart.

VII. The systematic study of aurora has received in 1893 a new impetus, as we know Dr. M. A. Veeder, of Lyons, N.Y., has given large attention to this study, and he has formed a plan, in which our Society has taken its own part, by which observers in the United States and Canada may co-operate systematically in observing auroral displays. It is confidently anticipated that it will become possible to give a simple and complete explanation of the entire magnetic system of the globe and of the changes which it undergoes.

VIII. The year 1893 has given birth to a new engine of discovery, the great Yerke's telescope, the 40-inch Chicago telescope (4 inches larger than the monster Lick refractor), of which we received a full account from our corresponding secretary, Mr. G. E. Lumsden, not long ago. The total weight is 75 tons, and when pointed to the zenith, the object glass will be 72 feet up in the air, about as high as a seven-story house. What it will discover for us we will watch and chronicle with interest.

IX. God buries His workers, but the work goes on. A noted man, on the 28th May last, lowered his arms in life's conflict before the 85th year of his age had closed, and entered into his rest—the Savilian Professor of Astronomy and Director of the Oxford University Observatory, the Rev. Chas. Prichard. It was not till he was 57 years old that he took any active share in astronomical research or gave signs of that energy and zeal that characterized his later years. We regret that in our own University of Toronto there is no astronomical observatory and no equipment, but we learn that the old university of Oxford possessed none till 1870. We trust our University will not let centuries go by, as did Oxford, before she becomes a student of the stars. For his photometrical research, Prichard received the gold medal of the Royal Astronomical Society in conjunction with Prof. Pickering, who had been engaged in stellar photometry about the same time. He determined the paradox of 30 stars of the second magnitude while at Oxford, and thus went far in the solution of a great cosmical problem. For this he received the medal of the Royal Society. Other problems were engaging his indefatigable zeal when he was called upon to solve the great problem of death and immortality.

Thus time drifts on: the firmament is old but never ages, and the science that seeks its secrets and writes its story is old but yet ever has the bloom of youth upon her cheek. The research of 1893 is closed, and we almost hear the not-far-off triumphs of

1894. Man's active hand still works, his busy brain still throbs, his restless heart still beats, for yet more glorious results, and these will yet fill historic pages and make it lustrous.

PARIS LETTER.

At Warina—unlike the case at Fontenoy—it was *Messieurs les Français* who fired first, but uninvited, on the English. This being now an acknowledged fact, it would be chivalrous on the part of France, not to be trying to wriggle out of the responsibility, or the possibility that the calamity occurred in an hinterland, not within a ring-fenced territory. Then again it is being urged that when the English marched their expedition to clear the Sofas, or pillaging tribes out of the Sierra Leone territory, that the French drove in there, they ought to have notified the French that the Campbells were coming. Query: did the French themselves notify the English that they were advancing into the bowels of the English territory? Lieutenant Maritz, the commander of the 1,500 French Colonial soldiers, admitted before dying, that the blunder of the collision was solely due to him. Surely the dying words, collected by an English officer, doubtless in presence of witnesses, ought to satisfy the French, and lead them to at once ask England what compensation she demands. Louis XIVth would have done so, and the Third Republic will not allow itself to be surpassed in making chivalrous reparations, by the souvenirs of the sun king? It is time for France to settle down in her African possessions and develop them; to be always on the war path in the promotion of civilization, would induce even philanthropists to pause, about the pace being too continuous.

The weather continues to be very treacherous; cold wave succeeds cold wave, as the ice floes follow each other down the Seine; the "jumps" to cold snaps continue to kill off the poor and needy, whose stomachs are empty and backs next to bare. The distress is very rampant; the churches are filled from morn to night by congregations of indigents, that the love of warmth makes pious.

The most complete indifference continues to reign respecting the elections for renewing the one-third of the Senate. Since the Upper House showed fight, showed its teeth in a word, it has met with more respect. It will not be a mere registration office for the Chamber of Deputies, but will have its own life, its own legislative say. Then the once tall talk about revising the Senate by abolishing it, has died away. It is not a fifth wheel in the state coach. The Senate was always a Turk's head with the radical party, a main plank in their platform. It is possible that for the future that home of the Fathers will be blessed, not anathematized, because in the elections just held, several radicals have been elected to the Senate. Indeed for some, it has proved a veritable hospital for incurables, a political hospice; the case of poor M. Floquet for example. His admission to the Senate implies immediate intrigues to oust M. Challemel Lacour from the presidency of the Senate. It seems to be also a kind of Pool of Bethesda for the maimed in public life. The late Jules Ferry, who was considered dead and buried as a public man, came up one morning, Jack-in-the-box like, as full-blown president. But he had talent, Floquet has it only moderately. Ferry never had any Panama spats, Floquet has,

but these apparently do not count. By the death of M. Waddington the Senate has one wise man less.

The Anarchists are quiet, biding their revenge time perhaps. The *Debut* is not a Boulevard journal, and it states, contrary to the general opinion, that the recent arrests and domiciliary visits, have enabled the police to seize papers, establishing a wide-spread organization amongst the Anarchists in France and on the Continent. This is unpleasant news for the timid when at their toast and tea, and will make the sceptical keep their eyes open when they attend crowded churches, or places where men most do congregate. But till Vaillant be tried nothing in the way of business is expected from the Anarchists. A secular and royalist journal are fencing and sparring over the origin of anarchy in France; one lays it at the door of atheism, the other at that of religion. They have now strayed into the Gospels, and are handling the history of Dives and Lazarus, the former was a typical capitalist, and was damned accordingly; the poor as a compensation are spared association with him in his warm quarters; they are taken to Father Abraham's bosom. The poor then ought not to hate the Rothschilds. No Christian, it is asserted, can be an Anarchist, hence the latter escape Papal excommunication. During this Byzantine discussion, some Anarchist may be preparing his saucepan of explosives to blow up both Dives and Lazarus—for his order makes no distinction between persons.

Whether first commence the Grand Trunk railway from Algiers to Lake Chad, with a junction at Timbuctoo, or the line of 2,500 miles from Saigon up Annam, Tonkin, and to the Wall of China? All these schemes are launched—on paper. But the promotion men have not appeared, and not even the snout of a guinea pig is discernible. The last idea to come into the mind of a peasant is, that of wasting a single franc in any colonial enterprise, unless the dividends be clearly stated, and guaranteed by the State. The peasant will in the majority of cases, act on the advice of the local banker, or the Governmental department Treasurer, as to the nature of the investment he ought to patronize; since these fiscal Gamaliels do not recommend Tonkin coal mines or Congo cotton groves, it is to be concluded the ventures are risky, hence why no private capital finds its way to the new lands. The State has not cash to spend in the development of its colonies: all it can obtain is for the maws of the army, navy, public works and free education. This being the case, France must depend upon the intelligent foreigner to reap all the material advantages her acquired territories may yield.

Paris just now has need of all the loose coins she can obtain to relieve the reigning distress; her celebrated races are subventioned by the Municipal Council chiefly, and by the railway companies and private subscriptions. Gambling, in the way of betting, is tolerated on the race course, and machines of guillotine design are constructed to receive and totalize the bets, and to cut off hopes when the race is run. On the contents of the pools, the Government levies a three-per-cent.—sweet simplicity—to endow provincial racecourses, and keep up breeding studs. Reformers have claimed, that as charity begins at home, the Government ought to refund a portion of its three per-cent. to relieve the