

PROGRESS OF ASTRONOMICAL SCIENCE.—Seventy-five years since, the only planets known to men of science were the same which were known to the Chaldean shepherds thousands of years ago. Between the orbit of Mars and that of Jupiter there occurs an interval of no less than three hundred and fifty millions of miles, in which no planet was known to exist before the commencement of the present century. Nearly three centuries ago, the immortal Kepler had pointed out something like a regular progression in the distance of the planets as far as Mars, which was broken in the case of Jupiter. Being unable to reconcile the actual state of the planetary system with any theory he could form respecting it, he hazarded the conjecture that a planet really existed between the orbits of Mars and Jupiter, and that its smallness alone prevented it from being visible to astronomers. But Kepler soon rejected this idea as improbable.

KNOWLEDGE OF THE WORLD NECESSARY.—Nothing has so much exposed men of learning to contempt and ridicule, as their ignorance of things which are known to all but themselves. Those who have been taught to consider the institutions of the schools as giving the last perfection to human abilities, are surprised to see men wrinkled with study, yet wanting to be instructed in the minute circumstances of propriety, or the necessary forms of daily transactions; and quickly shake off their reverence for modes of education, which they find to produce no ability above the rest of mankind. *Books, says Bacon, can never teach the use of books. The student must learn by commerce with mankind to reduce his speculations to practice, and accommodate his knowledge to the purposes of life.*

CHEMISTRY AND MATERIALISM.—The renowned Liebig delivered a public lecture on "Animal Chemistry" at Munich, on the 19th of January, in which he took occasion to declare, from his position as chemist and naturalist, his opposition to the widely spread views of Moleschott, Vogt, Buchner, and others of the most rugged materialism. He pronounced himself, with dignity and energy, against the "deniers of mind and vital power," and illustrated and combated, from his profound conviction, their erroneous theories on pure scientific ground. He showed how impossible it is to explain, on chemical principles, the existence of even the lowest connecting parts of an organism—of a cell or a muscular fibre—and how much more so to account for the mysterious processes of life and thinking by a change of matter. He demonstrated how unable materialists were to distinguish organic combinations from those purely chemical. Nothing, he said, was more absurd than to derive the process of thinking and willing from a phosphorescence of the brain, as Moleschott had done. How much more of thinking stuff than, (material of thinking), would there be contained in bones, which have four hundred times more phosphorus than the brain?

COAL AND WOOD.—Wood used as fuel generates heat more rapidly than coal; but a pound of the latter (anthracite) will evaporate three times more water than a pound of wood. As a compact fuel, coal, therefore, is the best for use in generating steam, because plenty of draft for rapid combustion can easily be obtained by a blower or tall chimney. As wood contains a great quantity of oxygen, and anthracite coal none, less air is taken from an apartment when wood is used for fuel, than when anthracite coal is used. This is the reason why the atmosphere of apartments heated with wood fuel produces, as it were, a more genial influence, and why such fuel is also more healthy for heating; also why it does not require such an amount of cold air from the outside to supply the fire.

CAMP AT WINCHESTER.—Instructions have been given by the government, that 500 acres of land in the neighbourhood of Winchester shall be purchased for the purpose of forming a permanent camp of 500 men.

EARTHQUAKES.—There are two theories respecting the cause of earthquakes.

1st. The igneous theory, which maintains, that this earth was once a molten fiery ball, and that its interior is still a fiery mass, and is sometimes caused to generate waves, which produces oscillations on the earth's surface.

2d. The electric theory, which attributes the shocks to disturbed magnetic action in the crust of the globe—that the shocks are nothing more than powerful electric shocks.

As earthquakes are local, those who dispute the igneous theory assert, that if the interior of the earth were a molten mass, and earthquakes were caused by waves of this fluid, then the oscillations would be felt equally strong on every part of the earth's crust.

NEW REMEDY FOR SEA SICKNESS.—Mrs. Emma Willard of Troy, proposes a new remedy for this unpleasant sickness, which consists in forcibly expelling the impure air, from the lungs, and filling them with pure air. This is her advice:—"Make your chest as small as possible by stooping, drawing down your ribs, and pressing your arms to your sides; throw out the air by a violent and long-continued exhaling, blowing it from your mouth as if engaged in blowing up a fire. Then change, make a long and forcible inhalation, opening your chest to its fullest dimensions by standing erect, and raising your arms from your shoulders. Three or four of these long forced breaths are sufficient to relieve a severe case of sea-sickness."

INTERESTING PORTRAIT.—The ship Frigate Bird, at Philadelphia, from London, brought a fine original portrait of the famous British patriot and statesman, John Hampden. It belonged to the Hon. John McGregor of the British Parliament for Glasgow, and is to be presented by him, through Mr. Buchanan, to the Congress of the United States.

ADULTERATIONS OF QUININE.—The high price at which sulphate of quinine can now be had in its purity, has led to its extensive adulteration. Physicians and the public should be on their guard, and only obtain the article from safe and reliable hands, else they may be using arsenic, piprine, or strychnine, for all these are employed for adulterating purposes.—*Medical Gazette.*

SUGGESTIVE FACT.—It is estimated, that every one of the soldiers who besieged Sebastopol, has cost, on an average, far more to France and England than a gospel missionary would have cost, according to the usual remuneration, in every part of the globe.

MORTALITY OF BUTCHERS.—An article of recent date in the London *Medical Times*, states, that the highest rates of mortality are found among the butchers, as is shown by official statistics, and confirmed by careful observation. The florid complexion, which is peculiar to the butcher, does not seem to indicate enduring health.

A PASHA ATTENDING CHURCH.—A letter from Jerusalem states, that on a recent Sabbath, his Excellency, Kiamil Pasha, attended the English service in company with his two secretaries, and followed as far as the door by a long train of servants. Who would have anticipated such an occurrence a few years since!—Christian church bells ringing in the Holy City, and a Turkish Pasha walking gravely to church.

THE EASTERLY WINDS.—Letters from Amsterdam state that a singular spectacle now presents itself, which has not been seen for the last half century; the Zuyderzee, in consequence of the long continuance of northerly and easterly winds, is almost dry. Between Geneminden, Blockzel, Lemmer Kampan, and Harderwyk the bed of the sea may be crossed dry-footed, and steamboats and other vessels are everywhere high on the sands.

(From the St. John Morning Courier.)

The Railway Bills, as passed the Legislature, provide for the issue of Debentures to the amount of £200,000 sterling per annum for railway purposes. Of course, the expenditure will be determined a good deal by the state of the money market in England. When Mr. Fisher began his arrangement with Messrs. Baring, the unsettled state of commercial affairs in consequence of the war, which then appeared likely to last another year at least, seemed to present an insuperable difficulty to raising money. Both himself and his colleague, Mr. Robertson, were surprised, we believe, when the promise of £50,000 sterling was obtained for 1856, at six per cent. This sum, it is expected, will completely finish the road from the Bend to Shediac, and provide for the surveys on the extensions, &c., during the present year.

It is very easy for parties who some months since ridiculed the bare possibility of our Government succeeding in raising money at such a time, to try now to misrepresent the terms. It is enough for us to know, that we have made in very bad times, as good an arrangement for money to build our Railways, as Canada, with all its resources, made in very good times; and every rational man, who is willing to risk borrowing money for such a purpose, will acknowledge that a much better bargain was made than we could have expected.

We refer to this subject now for another purpose. Although we only get £50,000 sterling during the present year, and probably could not well expend it, if we had more, we have authority under the Bill to create £150,000 additional debentures. Thus, if in 1857 and 8, the money market should be very easy, we can go to the extent of £550,000 sterling. That amount with the £50,000 this year, and the £60,000 which will be paid to Jackson, will make altogether the sum of £900,000 sterling by the end of 1858.—Now, assuming that the Government draw this full amount, it is pretty clear, that by that period we shall have an important line of Railway completed, and two others commenced.

Some persons who ought to be good judges, say, that our Railways can be built by the Government, when payments will be cash, for a sum not exceeding £5000 sterling a mile, on an average. We are informed on good authority, that a contractor of eminence, has already expressed his willingness to build the line from Shediac to St. John for this sum. If this be so, and we believe it is, there is nothing to prevent the whole line from Shediac to St. John being built by the autumn of 1858, or at latest early in 1859, besides an expenditure of considerably upwards of £100,000 sterling on the two extensions by that time.

We believe that the design is, to complete from Shediac to the Bend as soon as possible; then to complete from St. John to Hampton, for which the contract can be issued at once. This part of the road, therefore, may also be opened next year.—We believe that the line to the Bend may be brought into use, and made to pay a little, as soon as particular parts are finished.

The extensions will be surveyed during the present season, and the expenditure will commence upon them next year. Many would have preferred seeing the line already under contract completed first, but this was found impossible, principally because of the feeling of the counties on the upper part of the River St. John. The Attorney General was not willing to allow York County to be unprovided for immediately, and as he had been so instrumental in securing the commencement of the work, the arrangement to provide for the road from St. John to Woodstock was assented to. This, of course, also led to the provision for the extension to Chatham, already secured by the old Bills.

We have been a little surprised at the dissatisfaction which some parties in Fredericton are said to have felt at not having the road immediately built. Could they expect this city, and the other counties immediately on the Shediac line, to give way for an entirely new line of road? Nothing, we are persuaded, but the wish of the Government and the House, to do all that was possible to meet the Attorney General's views on this point, in consequence of his own exertions, would have induced them to consent to any expenditure on the extensions, until the Shediac and St. John line was first completed.

But our friends in the interior are now perfectly safe. They have for the first time a Railroad secured to Woodstock. They will have a survey immediately, and during the next two years an expenditure which will make them probably twelve or fifteen miles of road. Then they will get their full share. The delay is a very small one, and we can assure them, that the value of the road upwards, towards the Province boundary, is estimated here, and will receive the most influential support, if it should ever require it.

If for instance, in 1852, when the Facility Bills were passed, an arrangement similar to that now made had been effected, we should now in 1856, have been about in this condition: the whole road from Shediac to St. John would be completed and in full operation; several

miles of road towards Miramichi would likewise be completed; part of the road from Fredericton to Woodstock would also be completed; and now the work would be proceeding on the whole line.

It is useless, however, to argue a point which is so plain. We may well express our thankfulness, that we have got rid of the great contractors. It is altogether idle to say, that they would ever have completed the work, even if our Government had met their demands last summer. Their present conduct with respect to Canada, shows that they are not to be depended upon. That Province has got into a sea of trouble with them, which will, we fear, seriously embarrass its railway movements for some time to come.

We shall now await anxiously the action of the Executive in taking the necessary steps to set the work in motion. It is necessary, we presume, that the Attorney General or Provincial Secretary should proceed to England and finish the arrangements. But, in the meantime, preliminary measures may be determined, both with respect to the road between Shediac and the Bend, and the survey of the extensions. We trust the Executive will do their duty promptly and energetically.

HASZARD'S GAZETTE

Saturday, April 26, 1856.

There are some expressions which derive their importance from the character and situation of the person using them. For example Mr. Coles in speaking of persons who in the exercise of a constitutional right signed an address to their Queen reflecting in severe terms, it is true, on the conduct of the present administration, calls them persons "eating the bread of that Government," whose measure they have had the ingratitude—for that is the import of the speech—to find fault with. When language such as this is used by the person calling himself the leader of the Government it is best to meet it at once. Does Mr. Coles mean to say, that because a man is a public officer, in the receipt of a public salary—of no consequence how much or how little—that the fact of his receiving such salary constitutes him a servant of the existing administration "whose bread he eats"? Yes, he does mean exactly this, in other words, "You are to a certain degree dependent on the vote of the House of Assembly for the means of living, and if you dare to find fault with a single act of mine, I will turn you out of office and put one of my own creatures in your place." Now this is language that would be considered constitutional, right and proper in Russia or Turkey, but among a people who boast of their descent from Britons, it sounds, to say the least of it rather strange and hardly accords with the refrain of the most popular song in their language, "For Britons never, never will be slaves." But where does Mr. Coles get this notion of official subserviency? Not from the maxims and practice of the British Parliament, we are most certain. Let him or any other person turn his eye over the list of the opposition, and he will see Generals and Colonels, and other officers in the army and Admirals and Captains in the navy, some on full and some on half-pay, speaking and voting against the present administration, and the Minister—if such could be found—who would dare to insinuate that they were "eating the bread of Government" would be assailed by such a storm of indignation and contempt, that would convince him that he had no longer any business there. When a man receives a salary for any services he may render the public, we have been always in the habit of supposing, that he was indebted to the people for the remuneration he received, and we think so still, notwithstanding the high authority of the leader of the Government. We are the more particular about this, because, if the idea is adopted and acted upon, we shall have become a meaner and more abject race, than the slaves of Russia and Turkey; and because such sentiments are diametrically opposite to the habits and manners of the British people, and the maxims of the constitution. A severe jealousy of the party in power is the rule. Soldiers are ordered off at a distance from the scene of elections, because their presence might intimidate the voters; every precaution is taken to prevent Government making use of its patronage in order to influence elections. The contrary we know is the case here. Men are put into places in the magistracy, the excise, the road service or any other service on the very express condition, that they exert their own influence, and the influence of their relatives and friends in keeping the party in power in their seats as representatives of the people. Such practices have always belonged to the worst periods of a nation's history. We have great hopes however founded on the general good sense and sound understanding of men engaged in agricultural pursuits, that such debasing sentiments as those involved in Mr. Coles' phrase of "eating the bread of Government" will be repudiated by the body of the people, and that Government broad-headers when seen coming to

the Hastings in will be stigmatized the invaluable "pendence" for a

Young Mx's subjects more in lecture to which large and resp delivered by the parance Hall, chosen was the the remedy pro long suffering happy in his ill tural in his ex with which he reception of the blessing to the the world, will ly remembered It was ann winter's cours mittee would e the services o notice would b

We are ind Boston Paper

We had the Watson Duch since. It is a well suited fo not be procur tones skillful and serve as a

We saw th first time thi

Summary

His Excellen pleased to app St. Peters an Trustees of the terms of the

His Excellen pleased to app of the Peace Alexander Donald, of U Belle Creek.

His Excellen has been pie High Sherid Island, for the KING'S Bay Fortune FRANCE

His Excellen has been menta, viz: Charles Felleto Jose to be Coron Wm. Ho Harris, of K In term intitled "additional

Arrived dolen 18th Good Int ship left her rudder mals and found to ble, the plank hav 2d Deco on land, a gale from of the shi

At the Michael At N Charlotte daughter deceas illness v parents early ex the joy At A and pub Mr. Hu leaving

THE Room o'clock A pa Char