

officers. Both these measures, it was explained, were based on English legislation. As respects the latter, there is the question whether our railway difficulties are such as to call for the establishment of such a court. Of course it would entail considerable expense, and for my own part I must say I doubt if there is need for it. But it may be taken for granted it will not pass without due consideration, and there can be no harm in ventilating the subject.

Mr. Plumb moved for statements respecting the Kaminitiquia harbour, having for object to obtain the soundings obtained this winter, and the list of vessels, with their draft, which had passed the bar. This was a motion which, as your readers will perceive, brought one of the battle horses of the late election campaign upon the stage; and Mr. Mackenzie, at whom it was mainly aimed, met it by stating that Mr. Plumb busied himself with retailing exploded falsehoods, and by the allegation that the location was made on the recommendation of Mr. Fleming, Chief Engineer. Mr. S. J. Dawson, the member, of all in the House, specially well informed in all matters pertaining to that district, met this allegation of Mr. Mackenzie with a flat denial, saying that Mr. Fleming, in a published letter, had disclaimed the responsibility of selecting this terminus, and that no engineer but Mr. Kingsford had ever reported in its favour, and he only after it had been selected by the late Government. Mr. Plumb read some extracts from the evidence of Mr. Fleming before the Senate Committee, which stated that the site had been selected by the Government, and he had merely pointed out the best portion of the plot acquired to be used for a railway terminus. Mr. Dawson further stated that the selection of the Kaminitiquia for the terminus was utterly bad, in respect of its being too shallow and the first part of Thunder Bay to freeze over. I merely give you these points of the discussion in advance of the facts which will be established by the papers. The large expenditure for the town site and all the scandal which arose out of it, whether well or ill founded, were serious enough, but were nothing as compared to the vast national importance of having the absolutely best place for the Lake Superior terminus of the Pacific Railway.

On Wednesday night, Mr. Fleming moved for a copy of the Order-in-Council prohibiting the landing of immigrants at Halifax having less than twenty dollars. It was scarcely necessary to move for this, seeing the terms of the Order are published in the *Canada Gazette*; but the object clearly was to obtain an opportunity for debate, and to attack the Government. The attempt, however, proved utterly abortive, and the explanation of the Minister of Agriculture was not only not met, but there was no attempt to meet it, and the debate drifted off into an aimless discussion on the effects of the National Policy. Mr. Pope said there had been complaints, especially in Western Ontario and by the *Toronto Globe*, to the effect that large numbers of paupers, who had to be maintained, were being introduced into the country. It was true that in the case of considerable numbers of these people, who landed in the country at the port of Halifax, the Government had, during this winter, been called upon to pay a large amount of money for their transportation. It was especially not desirable that large numbers of persons in totally destitute circumstances should be landed at Halifax in the winter time. It was therefore that the Government had made use of such means as the law allowed it to stop the introduction of such persons; but the provision applied only to the single port of Halifax, and was not at all intended to check any desirable immigration, but, on the contrary, to promote it.

Mr. Bolduc moved the second reading of a bill in amendment to the Election Law to increase the sum deposited by each candidate from \$50 to \$300, the amount to be returned to the successful candidate, if he obtained the half of the votes polled by the electors. He explained that the object of this was to prevent mere men of straw setting up for candidates for election dodges, and to ensure the good faith of all candidates contesting elections. Sir John Macdonald favoured the principle of this bill, but would make the deposit \$200. Mr. Langevin also favoured it, as working well in the Province of Quebec. The motion was lost by two votes on a division, the sense of the Ontario members being apparently decidedly opposed to the measure.

Sir John Macdonald has moved that the Committee on Printing should be instructed to appoint a special joint Committee of both Houses to enquire into some means to prevent abuses in the letting of printing contracts, with the view to prevent such scandals as those with which the country has lately rang. The Committee are to be instructed also to inquire into the circumstances of these abuses, and it is to be hoped they may succeed in devising some measure to check them, otherwise the contract system will be run to the ground, and some other system will have to be adopted. This action was such as was expected from the hands of the Government, which cannot be held responsible for the abuses that have taken place under the management of the Printing Committee.

Mr. Keeler moved the reading of a Bill to repeal the Supreme Court, which gave rise to a somewhat important debate respecting it. Sir John Macdonald stated that the proposition before the House was too retrograde to be accepted by it, but he admitted it was unfortunate that the Court had failed to command that public confidence which ought to be reposed in it.

That was a hard hit from the leader of the Government. Mr. Blake supported the Court. He contended that the appeals, which were not very numerous, were not expensive; and that such a Court was necessary for the working of our Federal system. To this Mr. McCarthy replied that only three cases involving constitutional questions had come before it during the five years of its existence, and even these had been carried to the Privy Council for final settlement. The six months' hoist to Mr. Keeler's bill was carried by a vote of 148 to 29, the minority being mostly composed of French members. There was, however, an understanding that the Government would take up the question during the recess.

On Friday Mr. Girouard again introduced his bill to regulate stock brokers. He seems bent on persisting that these gentlemen shall be kept in order. The British Columbia judiciary resolutions of the Government were passed through Committee. The object is to provide for more courts and judges in that Province. The Opposition attacked Sir Leouard Tilley for not being ready to bring down his Budget. He answered that due diligence was used in preparing it, and that it would be ready in good time. Of course it is far better that the Government should thoroughly mature what they have to propose. Mr. Girouard's wife's sister's marriage bill again came up, but the sense of the House seemed to be against it, and the debate was simply adjourned on motion of Mr. Houde.

HISTORY OF THE WEEK.

MONDAY, February 23.—The Imperial House of Commons has passed the Irish relief bill.—The commander of the Winter Palace at St. Petersburg has been arrested.—A walking match is talked of between Blower Brown and Rowell for £1,000 aside.—It is rumoured that Lord Beaconsfield contemplates an early dissolution of Parliament.—A Berlin despatch says negotiations between Germany and the Vatican have collapsed.—It is rumoured that the Grand Duke Nicholas is implicated in the Winter Palace explosion.—H. M. S. *Invisible* has been despatched to Salonica, in consequence of the capture of Col. Singe and his wife by Greek brigands.

TUESDAY, February 24.—It is thought that the present opportunity for making terms with Mahmoud Jan is a favourable one, if the British will accept Yakoub Khan's son as the heir to the Ameership.—Turkey has resumed negotiations with Greece on the new basis proposed by Great Britain.—The Imperial Parliament has appointed a select committee to investigate the loading of grain ships in bulk.—Liberia has annexed the adjoining country, known as the Kingdom of Medina, on mutual and peaceable terms.

WEDNESDAY, February 25.—The Emperor of Germany has urged on the President of the Reichstag the absolute necessity of passing the Army Bill.—The French Government has declined to extradite Hartmann unless his complicity in the Moscow affair is satisfactorily proved.—The Indian budget shows a surplus of £119,000 for the transactions of the year 1879-80, and the estimates for 1881 a surplus of £417,000, after providing, from ordinary revenue, for all charges on account of famine and the Afghan and frontier railways.

THURSDAY, February 26.—An earthquake has visited Yeddo.—The Persian army is said to be moving on Herat.—A Mussulman rising has occurred in Rousselia.—M. Du Camp has been elected a member of the French Academy.—Davitt, Daly, Killeen and Brennan, the Irish agitators, will plead to their indictment to-morrow.—The Home Rulers do not intend to propose any direct negative motion to Sir Stafford Northcote's obstruction resolutions.

FRIDAY, Feb. 27.—Count Radowitz has been appointed German ambassador to Paris, in place of Prince Hohenlohe.—Russia is said to be in negotiation for an alliance with France, in view of future war with Germany.—All the South African colonies intend sending delegates to Cape Town, to discuss the federation scheme.—The steamer *Para* from Boston for West Hartlepool, foundered off Cape Sable on Thursday night. The crew were saved.

SATURDAY, February 28th.—A despatch from Paris says that St. Gothard tunnel has been success fully pierced.—Victor Hugo has made an appeal to the French Government not to permit the extradition of Hartmann.—A Rome despatch says negotiations are in progress for the re-entry into the fold of many of the Old Catholic clergy.—Turkey has appealed to the Powers to settle the Greek frontier question, Greece having broken off the negotiations.—The twenty fifth anniversary of the Czar's accession takes place on Wednesday. There is said to be an ominous activity among the Nihilists.—General Roberts has not been successful in his negotiations with Mahomed Jan, but many of the latter's followers are falling away from him.—Senor Robledo, Spanish Minister of the Interior, violently attacked in the Cortes those who sympathized with the schemes of Cuban autonomy and independence.

NOTES FROM HAMILTON.

A MODERN CONFLICT.

Students of history, as well as people who have not made history a study, have leanings; their opinions are usually influenced by their individual temperament. Who is there among us but does not feel warmed up to an indefinite degree of enthusiasm when reading about, or being reminded of, the feudal days of old? Who can peruse those descriptive lines which narrate so powerfully the famous combat between Fitz James and Roderick Dhu without a feeling of sympathy towards one side or the other? Sir Walter Scott and others have portrayed those romantic times so vividly that it is no wonder if the people of to-day experience a longing for a taste of feudalism, and manifest an eagerness for a conflict of some kind or other. In fact there seems to be good grounds for the observation that it is doubtful if the whole reading world is unanimously in favor of a purely constitutional form of government. Some such feeling must have animated the people of this city. For some months back Hamilton has been the scene of a terrific con-

flict, none the less absorbing on account of its bloodlessness. It was a war of wind. As has been the case with most wars, the cause was an exceedingly simple one, and, at first, no one dreamed that such an innocent looking question could give rise to so severe a struggle. The original question was, "Shall we have a steam fire engine?" Some of the worthy aldermen, backed up by some of the people, said "yes," and the remainder of the civic fathers and the voters said "no;" and then began the discussion. Where it would have ended, or whether it would have ended at all, is hard to say, for everybody seemed wound up for the occasion. A great fire occurred, however, at which the water supply was not a success and then the "yeas" gained a victory. Then arose the more complicated question as to what machine should be obtained. In due course two handsomely gotten up steamers presented themselves as candidates, and each was backed up by a strong array of followers and supporters. Meetings were held, committees and counter-committees appointed, investigations and tests took place, by-laws were introduced, thrown out, brought up again, submitted, voted upon, etc.; all the while "the utmost excitement prevailed." The secret of the fight was of a national character, for one machine was American and the other Canadian. The supporters of the National Policy were determined that the Canadian should not be left out, and their opponents struggled hard for a victory for the foreign production. As day after day, week after week, wore on, the contest waged hot and heavy, and at one time, during a test, there was actual danger of a riot among the assembled multitude. Strange to say, all of a sudden the excitement abated, everybody lost interest in the contest, except the owners of the rival machines, and a by-law was voted upon and the result was that the city is not to purchase any steamer at all.

But it was a famous conflict, and although some cynics speak of it as a "tempest in a teapot," still it afforded a great deal of amusement for the "boys" and made things lively for a time. Now that it is past, the people have time to reflect and many are puzzled to know how others could have made such fools of themselves.

W. F. McM.

Hamilton, Feb. 27th, 1880.

LAW OF PLANETARY VELOCITIES.

THE ORBITAL VELOCITY PER HOUR OF ANY PLANET AND ITS DISTANCE FROM THE SUN BEING GIVEN — TO FIND THE ORBITAL VELOCITY OF ANY PLANET WHOSE DISTANCE FROM THE SUN IS GIVEN.

Divide the greatest distance by the least and thus find the ratio of the distances, extract the square root of this ratio, divide the velocity of the nearest planet by this last quotient, and the resulting quotient will be the velocity required, namely that of the furthest planet.

The theory of Sir Isaac Newton assumes that in the beginning the planets were projected by a certain force unknown to him, and that were it not for the mutual attraction existing between them and the sun, they would move forwards in a straight line and with a uniform velocity forever; but in consequence of the force of solar attraction, they are drawn out of rectilinear paths and describe orbits nearly circular round the sun.

The system of Descartes supposes the planets to be carried round the sun by the action of a circulating medium; but Descartes never attempted to account for the cause or antecedent of such motion.

The Newtonians condemned the Cartesians, and the Cartesians as loudly condemned the Newtonians. "How dare you," says Newton, "assume the motion of a fluid medium which has no existence?" The Cartesians then remind Newton that he assumes that the planets were projected in a straight line, while they evidently describe elliptical orbits.

Sir Isaac Newton then plainly tells the Cartesians that even admitting that the planets are carried round the sun by the action of a circulating medium it would not account for their various velocities.

"Had Descartes," says the American astronomer, Newcomb, "been able to show that the velocity of the planets must diminish as they recede from the sun, according to Kepler's third law, his theory would so far have been satisfactory."

It must be confessed that the objections made by either party against the other, are of scientific value.

In a pamphlet which I published in 1877, I showed that it is now universally admitted (notwithstanding the authority of Newton) that space is filled with a fluid called ether. It is admitted that the sun is a heated body. It has been proved by experiment that some portions of the sun radiate less heat than other portions. It follows then that if there are inequalities of heat on the sun's surface, a motion of solar atmosphere would take place to restore the equilibrium. The motion then of the solar atmosphere in the direction of the sun's motion would communicate a circular motion to the fluid filling the interplanetary spaces, and this circular motion of the fluid would, as supposed by the Cartesians, carry the various planets in their respective orbits round the sun. It appears to me, that this explanation, which the Cartesians did not give, is satisfactory, and rests

on strong probable grounds and in strict harmony with terrestrial phenomena.

Before attacking the problem which heads this article it is necessary to supply a fatal omission of that great philosopher Descartes—an omission which rendered it impossible to meet the objection which I have quoted from Newcomb, and which had previously been urged with great success by Newton himself. The objection urged by Newton was this: If a liquid is caused to revolve by the application of a force in the centre, small bodies floating around that centre, and at various distances from each other, are not found to observe the same law as the planets do in their motions round the sun. It must here be observed that the great defect in the Cartesian system, in this respect, was that Descartes failed to point out that in consequence of solar heat decreasing according to the square of the distance from the sun, so does the ethereal fluid increase in density from the sun. The force then of Newton's objection necessarily falls to the ground for this reason. The experiments which were made were effected by a liquid substance of uniform density from the centre to the circumference, whereas the experiment should have been made (if practicable) with a liquid substance whose density decreased from the circumference of the whirl or whirlpool to the centre. The question then arises, assuming that there is a whirlpool circulating round the sun, and that this whirlpool extends to the limits of the solar system, and that the density of the fluid is affected by the action of solar heat, at what rate would the velocity of the whirlpool decrease from the sun?

Having thought over this matter, and having made repeated experiments I find so near as I can calculate it, the following result. Assume that at a distance of 20,000,000 miles from the sun, the velocity of the medium is 150,000 miles per hour, what would be the velocity of the circulating fluid at a distance of 80,000,000 miles from the sun? Divide 20,000,000 into 80,000,000, the quotient is 4, from which extract the square root which is 2, which sum divided into 150,000 will give 75,000 miles of velocity per hour. This is the exact law which the planets observe in their motions round the sun, as will appear evident by the following:

The planet mercury at a distance of 35,392,608 miles from the sun travels at the rate of 105,330 miles per hour, at what velocity per hour should the planet Mars move whose distance from the sun is 139,312,226 miles if both are carried round by the action of a circulating medium? Divide 35,392,608 into 139,312,226 will give 3.9861954602, from which extract the square root, will give 1.993985, and which divided into 105,330 will give 53,090 which is the velocity of Mars per hour. In case there is an inter-mercurial planet at a distance of 15,730,048 miles from the sun, its orbital velocity per hour will be 157,995 miles, or if it is at a distance of 8,848,152 miles from the sun, it will travel at the rate of 310,660 miles per hour. Should any planet hereafter be discovered whose orbital velocity is one mile per hour, its distance from the sun can be ascertained by the following operation 35392608 x 105330 x 105330.

Having for a number of years devoted considerable attention to this subject, I offer the solution of this problem to the consideration of scientists, particularly astronomers. There is another application of this rule and of a more startling character; but as I have not yet subjected it to a sufficient number of trials, I will defer making it public until I will have done so.

DUGALD MACDONALD.

Montreal, 23rd February, 1880.

BRELOQUES POUR DAMES.

The women who do fancy work don't fancy work.

THE cash gifts to Mrs. Ouray, in Washington, amounted to \$500, mostly in nickels and dimes.

LEATHER petticoats are worn for walking by English women. They look like satin and wear forever.

A GENTLEMAN refusing an offer of marriage during leap year is expected to present the young lady who proposes with a new dress.

MACAULAY was, sour enough to say: "Men are loved by women in proportion to their success in life." He was a bachelor and devoted himself to making history.

It is a mean woman who will paste a last year's plate of fashions for bonnets into a this year's fashion book, and lend it to female friends just before Easter Sunday.

THE Chicago School Board having decided that teachers must leave the school when they are married, the *New Haven Register* thinks "it makes it very unpleasant for young men who are looking for support."

A YOUNG man who was pleasantly engaged in dealing out taffy to his girl over the telephone wire recently, was much disgusted at hearing a voice from the central office remark: "Please hurry up if you have anything to say; there is a business man waiting for the wire."

"We bring up our girls," remarked a modern writer, "like young men, and give them the freedom and privileges of bachelors, and then we expect that they will bear the monotony of matrimony and the restrictions of maternity with a good grace, and be home-staying wives and mothers after having been maiden rovers and ramblers."

Father is Getting Well.

My daughters say, "How much better father is since he used Hop Bitters!" He is getting well after his long suffering from a disease declared incurable, and we are so glad that he used your Bitters.—A lady of Rochester, N. Y.