less resisting force than Metz; more reflecting people, however, believe that the war will not end till after the fall of Paris.

THE SIEGE OF PARIS.—The special correspondent of the *Telegraph*, writing from Versailles, the day of the sortie by the Paris garrison, says—An observer is apt to be led astray in estimating the strength of the German position, although the besiegers, wisely enough, have not attempted with the force at their disposal to fortify and entrench a fitted and continuous line right round Paris. Although one may ride about a great deal without seeing any large bodies of troops, still the pickets are so placed, and the natural lie of the lands has been so carefully studied and turned to advantage in the disposition of the supports, that long before an attacking force could penetrate far enough to inflict serious damage, a sufficient number of men would have been massed to bar efficiently its further progress. The experience of to-day has amply proved the excellence of the arrangements. The Germans did not expect the attack, but when it came, they were perfectly prepared to meet it. Every hollow has been utilised, and every village turned to the best account. Each detachment and regiment knows exactly to what point and by which path it is to proceed in case of alarm, and the most available places have been fortified. By the admirable manner in which they thus practically employ their accurate topographical knowledge, the besiegers are so screened and guarded that they offer scarcely any mark for the enemy's guns, and are even difficult to be found by those on their own side who do not know the exact spot on which the different bodies of troops are posted; but in case of an alert, or when the outposts are relieved, the detachments come pouring in from all directions with such regularity and speed, that in a few minutes a large force is collected in a place where one would have previously supposed there were scarcely a hundred men. Everything is done so as to render the outpost duty as little harassing as possible. The men are three days out and six days in quarters, and when on duty are so disposed as to sustain but little damage from the enemy's fire. Another advantage of the open line system is that even should a large French force cut its way through, there is no way for it to go, except at one or two points of strategical importance, which have been carefully prepared, and would be most resolutely held.

TROCHU'S PROCLAMATION.

The following is General Trochu's last proclamation:—

"MONSIEUR LE MAIRE—I have the honor to make known to you the basis on which, in concert with the General Commanding the National Guard, I propose to organize the battalions of the National Guard capable of mobilisation. Their mobilisation encounters considerable difficulties, and, consequently, delays of which the public feeling—very naturally impatient, in consequence of its lively patriotism—expects some satisfactory account. It is my duty to enlighten it, without being carried away by its enthusiasm, and to show that no one more than myself has more at heart the honor of the National Guard of Paris and the responsibility of the great interests which it will engage on the day when it marches to meet the enemy. When I undertook the defence of Paris, with the assistance of devoted colleagues whose names the gratitude of the public will one day proclaim, I had to struggle with a sentiment very different from that which is evinced now. It was believed, and it was repeated, that a great city like our capital, influenced by interests, by passions, by such diverse requirements, was not capable of being defended and it was only with great difficulty it was at length admitted that the fortifications of the capital and its forts, constructed long ago, and under very different military conditions to those which are in vogue now, could be adequately prepared to oppose, without the assistance of an army operating outside, a serious and lengthened resistance to the attacks of a victorious enemy. Besides, it was not expected that the population would be prepared for the sacrifices of every sort, for the resignation, which a siege of any duration necessitates. Now, that the trial has been made—*i.e.*, that the state of the defences has arrived at such a state that renders the approaches to the capital invincible; that the inhabitants have given proof of their patriotism, and silenced a number of men whose culpable designs aided the enemy's projects; that the enemy even, retiring before our formidable defences, has contented itself by surrounding the city with masses of troops, without daring to attack the city; the public feeling has become considerably more calm, and it has now but one preoccupation—to throw, in its turn, large masses outside the fortifications to meet the Prussian army.

"The Government of National Defence cannot but encourage this *elan* of the whole population; but it remains with the commander in-chief alone to direct it; for upon him alone rests such an immense responsibility. To this end he is bound not to allow himself to be persuaded or influenced, excepting by the rules and experiences of war, and by those special experiences which we owe to the painful events which have overthrown the army of the Rhine. They prove that no infantry, no matter how formidable it may be, can be advantageously engaged with the Prussian army unless it is accompanied with artillery equal to that of the enemy; and it is with the object of organizing this artillery that I am now using every effort."

The general next proceeds to lay down his regulations for the embodiement of the soldiers, and then continues:

"I terminate, M. le Maire, this expose by one reflection. In the month of July last, the French army, in all the brilliancy of its force, marched through Paris, amidst cries of "a Berlin, a Berlin!" I was far from participating in this confidence—probably, the only one amidst all the general officers who dared to declare to the Minister of War, that I saw in this noisy entrance on active warfare, the elements of a great disaster. The will, which, at this epoch, I left in the hands of Mr. Duclourx, Notary of Paris, will here witness, whenever necessary, the painful presentiments, but too well founded, with which my heart was filled.

"Now, amidst the fever which has legitimately taken hold of all men's minds, I meet with difficulties which present the most striking analogy with those of the past. I now declare that, having the most entire faith in the return of fortune, which will be due to the great efforts of resistance which are so conspicuous during the siege of Paris, I will not cede to the pressure of public impatience. Inspired with the duties which are common to us all, and with the responsibilities which no one shares with me, I will follow out to the end the plan that I have already traced out—without indicating it—and I only ask from the population of Paris, in exchange for my efforts, the continuation of that confidence with which it has until now honored me.

"Receive, Monsieur le Maire, the assurance of my high consideration.

"The President of the Government,
Governor of Paris,
GENERAL TROCHU."

HOSPITAL SCENES AT VERSAILLES.—The *Times* correspondent at the Crown Prince's head-quarters describes, in a letter of the 25th ult., a visit to the Palace wards, beginning with those of the Dutch ambulance:—The first I entered was the "Salle des Guerriers Celebres"—the ancient antechamber to the apartment of Madame de Pompadour—in which were the usual hospital scenes—a Sister of Charity with a bowl in one hand and a spoon in the other, feeding a soldier too weak to rise; a surgeon dressing a dreadful wound: "I'm trying to save the joint, but I fear—still it's a neat case. The poor wretch looked at the shattered bone as if he more than shared the doubt. While I was in one of the Salles des Marechaux, a surgeon was probing a gun-shot wound in the thigh of a man, who uttered such harrowing yells that the Sister of Charity—there is one in each room—turned and fled, a wounded man near burst into tears, and all in the ward were agitated except the surgeon and his assistants, one of whom tried to stop the outcry, by putting one hand on the top of the patient's head, and squeezing his mouth and chin with the other, till the doctor lost his patience and roared at the wretched sufferer do be quiet, applying a strong term at the same time. The yell died into a whimpering moan, still more dreadful, and I retired. The doctor is a very clever man, I am told, and has his hospital in capital order. One man was alive with a ball lodged in his brain; he had even been conscious. Another had the side of his skull carried off by a bit of shell; a third, in a ward all by himself, was—but no! It was too horrible. The man was in mania, and and Mr. Furely (who was with me) and I hurried into the next ward, whence an orderly was sent to keep watch and ward over the "case." The gallery of Louis XIII., of the admirals of France, and so on all round, are filled with wounded men to the end till we come to the officers' rooms. The suites upstairs in the palace, or chateau as it is more generally styled, are occupied in the same way as those below. There is at least silence in the rooms, broken only by the whispers of the Sisters of Charity, the voices of chaplains by the bedsides, and the rustling of newspapers, which are eagerly read by the wounded; but the rooms are draughty and cold, and as winter increases in harshness, there will be difficulties in ventilating the wards. Every day there is a ceremony which attracts a crowd in Versailles, and makes its sad sensation—the departure of funeral parties from the front of the palace, with their burdens for the cemetery. These military funerals are conducted with great propriety and decent solemnity. The officers' coffins are covered with a black velvet pall, with a cross edged with white thrown over it, and the biers are decorated with wreaths and chaplets; the men's are draped with white. When all is ready the bearers take up their loads, the band leads the way, and nothing can be more touching, plaintive, and tender than the strains of the funeral march. Then comes the infantry guard with sloped arms, not reversed; then the officers who are mourners; next, the chaplain, with an officer on each side; the coffins are borne behind the chaplain, who is on foot, and the procession is closed by the firing party and by soldiers and civilians. All along the route to the cemetery the streets are crowded, and the windows are full. You see women in black with streaming eyes look out on all that remains of an enemy whose hand may haxe filled the unconscious house with mourning. In the cemetery there is an immense excavation, capable of containing some hundreds of coffins. And so Protestant and Catholic are left to their rest. "*They* will never enter Paris," growled a young man near me as he walked off; "those there, at all events." "*Mon ami*," said, in a gentle tone, an old gentleman, turning round on him, "let us hope that they will enter a far better place, where we shall meet them." The few words were said with a charming grace and sweetness. It was one of those little phrases in which Frenchmen excel and which in its *tournure* covers a thousand faults.

The *Independence Belge* publishes the following:—"An officer who escaped from the capitulation of Metz, brings us a number of the *Independent de Crioselle* a journal published in Metz at the time of the entry of Germans. The circumstances which preceded the surrender are there narrated in a detailed and precise manner. From this account it is clear that the besieged army has been unworthily deceived by its chiefs, who, in order to quiet the soldiers when they demanded to be hurled upon the enemy, to cut a way through at any price, promised that the army would soon be able to go out intact with all the honors of war. The leaders declared all France to be a prey to anarchy; that Paris, Lyons, Marseilles, Bordeaux, and Toulouse were in open civil war; that Rouen and Havre had demanded help from the Prussians, and that it was impossible to obtain anything more than a capitulation on the same basis and terms as that of Sedan. The *Independence* adds, there is no longer any doubt that Gambetta had reason for making the accusation of treason.

The Herald.

Wednesday, November 30, 1870.

THE Reports of the Visitors of Schools for the three Counties of Prince Edward Island for the years 1869-70, have for some time been before the public. They are entitled to consideration, both from the great importance of the subject upon which they are intended to furnish us with information, and from the fact that they ought to serve as vouchers to show what returns are derived from the large amount of public money invested in the service of education. In this latter aspect, we are of opinion that the reports in question, do not possess that clearness and distinctness which such documents should have. We have scattered facts and figures in abundance, but we have no practical results drawn from statistics or observation—no hints for guidance in any course of amelioration—no indication what proportion the fruits bear to the outlay. This we regard as a shortcoming to be regretted the more as it is chiefly upon the Visitors reports, that the members of the Board of Education must rely for direction in the exercise of their functions. One inspector does venture to suggest two innovations; but neither of these is shown to be necessary from his report. He gives us no data by which to ascertain whether the irregular attendance at school is greater in Prince Edward Island than in Great Britain, and so rendering necessary a compulsory clause in the Education Act. The introduction of graded schools is also recommended, for reasons set forth by the Council of Public Instruction of Nova Scotia. We may have something to say regarding this suggestion at a future time. In the meanwhile, we may state one inference which we have drawn from the perusal of these reports, and it is, that however well our School Act may look on paper, its practical working is in many respects dangerously out of gearing. The machine is not bereft of motion: it has indeed an overstock of it. But every movement is isolated—there is a lack of combination, and progress is, in consequence, infinitesimal, if any at all. To illustrate our meaning practically, we will consider in detail the working of our school system, on the evidence set forth in these reports. We begin with the Normal School:

A Normal School is an Institution designed for the effectual training of school teachers. As such it should possess all the requisites for effecting this. The Principal should be a man of talent and practical ability, capable of imparting to his students every essential in the theory of their profession, and of illustrating his theories by practical examples in actual teaching. For this purpose, attached to the Normal School, there should be a practising school. This in classification arrangement and discipline, should be a model. Here the students are expected to be instructed how best to reduce the theoretical portions of their training to practice, what system of grouping to pursue, what methods to adopt in teaching the different branches, how to enforce and maintain a stringent discipline—in a word, whatever is within the range of purely technical subjects, or can be reduced to a system, and, as it were, depicted on a map, should be there acquired with precision by the students. We have no data in the reports before us to compare our Normal School with the above outline. We are only informed of the number of students in attendance. We know, however, that the Normal School is not, as it ought to be, the vestibule through which Schoolmasters must pass, to enter on their profession. It is no draw-back, on this Island, to a candidate for a teaching license, that he has never attended the Normal School. It can, in military phrase, be completely turned, and left isolated. Again, there is a "Model School taught in a room immediately adjoining that in which the Normol School is taught;" but the School Visitor tells us the connection between these two schools is merely nominal; and he adds, "there is apparently neither common ground of action nor community of interest." Thus, not only is the Normal School itself isolated, but its most essential feature, the practical training school, is rendered of no use whatever to it. With the main spring of a system so deranged, it would be unreasonable to expect regularity of action in the parts. Let us glance at one or two. The frequency of complaints in the Visitors' Reports of the remissness of Trustees, warrants the inference that these bodies throughout the country discharge their duty lamely. Over and over again, the Visitors complain of their suggestions being unattended to. Were the law administered, as it should, this might be prevented; but, in the meantime, it is perfectly true that there are a very great many Boards of Trustees who perform their duties with a sovereign air of independence, acting when it suits them and abstaining from all action, just as circumstances prompt.—Again, as to the teachers, the percentage of them condemned by the Visitors for incapacity or carelessness, is exceptionally large. They can, as it would seem, assume independent action. The instances set down in the reports are not numerous, but they are flagrant. Some teachers consult their own judgment in the matter of taking vacation, and by a curious coincidence the time set aside for that purpose is the very time that the Visitor is expected. Disrespect to Visitors by teachers is noted both in last year's reports, and in those of the present year. Indeed, we are firmly of opinion that, so long as the Normal School remains in the isolated condition in which these reports represent it, the evils which the Visitors complain of in our school system will increase. Let school management be made a leading feature in the plan of studies carried out at the Normal, and let the candidates for teaching diplomas be tested by the examiners on their ability to teach a class, and to convey to children clearly and interestingly, the knowledge they possess themselves. Born teachers are as rare as born generals. The cadet frequents the military school—the young teacher the Normal. The country that leaves the attendance at either institution optional, must be prepared to content itself with countless inepts in both professions.

THE City Council have contributed $100 towards the Fund for the relief of the sufferers by the Saguenay fire.

THE maudlin sympathy for lawlessness and dishonesty to which the *Patriot* has, for many months past, given expression, in connection with the fishery question, has at length borne its legitimate fruits, in one of the most daring acts that has ever occurred in Charlottetown. It will be remembered by our readers that we chronicled, some time ago, the capture, by H. M. S. *Plover*, of an American fishing schooner named the *Clara F. Friend*, which had been repeatedly caught in the act of fishing within the three-mile limit, and ordered off. Having been handed over to the civil authorities on her arrival in Charlottetown, a guard of three men was, by order of the Court of Vice Admiralty, placed on board of her, to protect her until after the Court had decided her case. The Court met for this purpose on Tuesday, the 22nd inst., and after hearing evidence and arguments, was adjourned for a few days, in order to give the Judge time to prepare his decision. In the meantime, the *Plover* left for Pictou, and on Thursday night, a lot of desperadoes, some seventeen in number, proceeded on board the *Clara F. Friend*, overpowered the guard and started for parts unknown. On Friday morning, the facts of the outrage became known through the guard, who had been sent ashore in the boat from which the schooner had been boarded. The authorities immediately sent despatches to Halifax, Pictou, or other ports where any of the Dominion or Imperial cutters might be at the time, with instructions to intercept and capture the runaway. The *Plover* having received one of these telegrams at Pictou, she immediately proceeded to the entrance of the Strait of Canso, where she lay in wait until about eight o'clock on Friday evening; at that hour, the watch on the look-out reported a vessel without lights. Although Capt. Pollard did not think the runaways would be so foolish as to attempt to escape in that direction, yet the circumstance of the sighted schooner having no lights up, aroused his suspicion, and he gave orders for a chase, the schr. being ahead some five or six miles. The steamer came up with her nearly opposite Port Mulgrave. She was found to be the *Clara F. Friend*, and she and her crew, five in number—some 8 or 9 having escaped in a boat as soon as they observed the boarding boat making for her—were recaptured. The schooner was brought back to this port on Sunday last, and on Monday evening, after a preliminary examination in the Legislative Library, the prisoners, under the guard of two Marines and two Artillerymen, were brought before the Mayor's Court for examination.

The prisoners, viz:—Chas. A. Friend (the owner) John Walsh, John Howe, M. McCarthy, and Edmund Moar, were charged by the Crown on two indictments. The first was for having committed an assault on the persons of two of the guard (John Thomas, seamen, and Michael Furness, of the Irish Volunteers,) and for rescuing the prize schooner, which they were, by orders of the marshall of the Court of Vice Admiralty, guarding. The second was for robbery. The evidence on the first count can be summed up as follows: On the night of the 24th inst., as above stated, at about 11½ o'clock, while John Thomas, M. Furness, and James Stewart, were on guard on board the *Clara F. Friend*, aboat, containing 15 or 16 men, came along side and boarded her—no resistance having been given by the guards—they stating, as very truly they might, that as they were so small in number, it would be useless for them to risk their lives in trying to defend the schooner against such an overwhelming crowd. On cross examination by M. McLeod, Attorney for the prisoners, it appeared from the evidence of the guard, that they were forced to help to weigh the anchors and set the sails. After the schooner got under way, the guards were given a boat to go ashore with. The Capt. and owner requested Furness and Thomas to leave the boat at Hall's wharf, and, by so doing, they would not be forgotten when the captors got to Gloucester. This is the pith of the evidence, as given in the Police Court on Monday. The case was then adjourned until Tuesday morning, the Court allowing the prisoners bail if they could obtain it. Mr. Friend was bailed by Messrs. I. C. Hall and Samuel Mutch, in the sum of £1000,—500 for Friend, and £250 for each bail.

On Tuesday morning the Court again met, when the Court resumed the consideration of the first count of the indictment, namely—assault and rescue. A riot was also sought to be brought into the count by the officers of the Crown, but on the protest of Counsellors McLeod and E. Palmer, this was overruled. The Mayor and presiding Councillor Brecken, after duly weighing the evidence, delivered their decision that the prisoners be held to bail to stand their trial at the January term of the Supreme Court on the first count. Bail was again given for Friend by Messrs. I. C. Hall and Samuel Mutch in the sum of £250 each. The remaining prisoners had not obtained bail up to the time of the adjournment of the Court, which was at 2 o'clock. On re-assembling at three o'clock, the Court proceeded to decide the second count of the indictment, or charge, which is the most serious, namely, larceny and robbery. After some legal points were raised in reference to the distinction between larceny and robbery, it was, strangely enough, agreed to by the counsel for both parties, to confine the second count to larceny. The Counsel for the prisoners, Hon. E. Palmer, then objected that it was unprecedented to bring in the lesser crime of assault and rescue first, and afterwards to indict them on a charge of stealing the cargo. The Crown Law officers were obliged to yield to the decision ruling in favor of the defendants. With the exception of the reduction of the bail from £50 to £25 in two securities for each of the men to stand trial in the Supreme Court, the case here terminated. Friend's bail remains as it was—Mr. William Mitchell taking Mr. Samuel Mutch's place as one of the bailsmen.

THE blessing of the new church at Fort Augustus, will take place on Thursday, the 8th of December next. His Lordship the Bishop will officiate, assisted by the Parish Priest, Rev. A. McDonald, Rev Thos. Phelan and Very Rev. Dr. McDonald, who will preach on the occasion.

WE are happy to place the *Scientific American* on our list of exchanges.

To any one who knows the present condition of our public roads, and the difficulty with which loads are conveyed, *not* over them, but *through* them, the idea of laying a Railway on the Island presents itself most naturally. Some of our contemporaries have already discussed the proposition of establishing railway communication between certain portions of the Island. In the belief that the project is seriously entertained, we lay before the public the following article, upon Mr. Thomson's Road Steamer, taken from the *Scientific American*. A perusal will satisfy every one that the invention is admirably adapted to our Island. Compared with the expense of laying a permanent way, and importing locomotives, &c., the cost of a Road Steamer would be insignificant. It would, moreover, serve as a kind of experiment, to test whether or no a regularly constructed railway would pay. Two or three of Mr. Thomson's engines would certainly pay their expenses, and if ever superseded by a permanent way, they could be employed on branch lines. We seriously recommend this matter to the consideration of men of capital and enterprise:

"This remarkable traction engine has, during the past two years, attracted more notice among scientific men than any of the numerous road locomotives which have ever preceded it. The use of steam on common roads has long excited the great interest of all engineers as well as of those who would benefit by its practical introduction. Without discussing the special reasons of the failure of the Boydell system, with its cumbrous self-carrying tramway, or the Bray engine with its projecting and receding claws operating through the periphery of its driving wheels, it may be briefly stated that no road engine has ever satisfied the demand for driving heavy trains of wagons on common roads, until the advent of Mr. Thomson's ingenious invention.

Adhesion, without two great weight; traction, without destroying the roads; gearing, which would not break when jolting over rough pavements, and steerage which would enable the engine to be easily turned, were some of the absolute requirements of a practical road locomotive. The enormous weight of the traction engines, with rigid tires, now used in connection with steam plowing in England, proves its necessity for the purpose of gaining sufficient adhesion. Their provision for inserting teeth in the face of the wheels tells the story of their destruction of roads when drawing heavy loads. Their inability to use springs causes a wear and tear of gearing and working parts, which any mechanic will understand, and the time consumed in turning corners quite unfits them for high speed.

Many ingenious traction engines have been made in this country, but as they were not constructed for drawing heavy loads, there was no occasion for them to surmount the difficulties stated above.

In the elastic tire invented by R. W. Thomson, C. E., of Edinburgh, all these fatal objections have been overcome and new powers developed. The idea of using vulcanized rubber for gaining adhesion, traction, and simplicity of gearing, was as novel as valuable. Even this useful and important discovery might have never been given to the world had not Mr. Thomson been a gentleman of large means as well as a thoroughly educated engineer. He was thus enabled to continue his experiments and perfect his invention before it was brought before the public, and it is probably for this reason that it at once attracted the notice of the most eminent engineers of the Old and the New World.

A few words will describe the "Road Steamer." The driving wheels are about five feet in diameter, with a broad iron tire having narrow flanges, upon which is placed a ring of soft vulcanized rubber twelve inches in width and five inches in thickness, which surrounds the iron tire, and is kept in place by the flanges. Over the rubber there is placed an endless chain of steel plates three and a half inches wide, which series of plates is the portion of the wheel which comes in contact with the rough road. This reticulated chain is connected by what might be properly styled steel vertebræ, at each side of the wheel. The rubber tire and this ring of steel plates have no rigid connection, but are at perfect liberty to move round independently of each other, or even without the concurrence of the inner ring of the wheel which they both enclose. This is a remarkable combination and contributes to the great success of the wheel as a whole. Holes are made in the inner iron rim of the wheel to admit air under the rubber tire. This enables the rubber to slowly creep round the wheel, so that in going a mile with a heavy load in tow, the rubber tire will be found to have crept once around the iron tire. To this ingenious device is due the indestructible nature of the tire. An enormously sudden and heavy strain upon the soft tire might tear it, but the slight slip saves it. Nearly the whole weight of the engine is upon the drivers, a third wheel in front being only for steering. The steering apparatus is therefore exceedingly simple, and the rapidity and ease with which it guides the steamer must be seen to be properly realized. It will instantly spin around with its inner driving wheel, describing a circle of less than six feet in diameter. The weight upon the rubber tires causes them to collapse and conform to all the irregularities of the road for a space of twenty inches each, and thus is insured adhesion and traction, which cannot be obtained in the slight line of contact with smooth rigid tires. To this fact is due the ability of the road steamer to draw enormous loads and to ascend steep hills.

Perhaps one of its most important features, as concerns its use in this country, is its ability to run over soft ground or muddy roads. The rigid-tired traction engines in England are able to slowly grind over their hard and magnificently macadamized roads, but upon our common dirt roads they would be utterly useless. In this respect the road steamer has been not inaptly compared to the elephant and camel, whose elastic cushioned feet enable them to cross the soft yielding sands of the desert. It is this same elastic cushion which prevents injury to the roads, and which, acting as springs or buffers between the rough road and the gearing saves the machinery from damage. The work done by the wheel in depressing the the rubber in front, is again performed by the rubber at the rear in urging the wheel forward, so that the one exactly balances the other, hence there is no loss.

The boiler used is of the vertical tubular type made entirely of steel and constructed with special regard to simplicity and great strength. All the gearing and working parts are either of steel or malleable iron, and are entirely hidden from sight. An ingenious device in connection with the exhaust steam almost completely suppresses the noise caused by its escape. The coal bunkers hold a day's supply, and the water tanks hold a third of a day's supply. There is a single gear for quick speed, and a double gear for heavy loads. The engines are double cylinders with a reversing gear. Either of the driving wheels can be thrown in or out of gear, so that in turning sharp corners the inner wheel is out of gear, slipping freely while the outer wheel drives the machine around.

When attached to a loaded train of four wagons by a simple triangle coupling the whole can be turned in any road of ordinary width, each wagon following in the exact wake of the steamer. The loads drawn by the two sizes now made are from twelve to twenty tuns, up inclines of one in twelve, and twenty to thirty tons on an ordinary level road. The speed varies from two and a half to six miles per hour for freight steamers, and ten miles per hour if constructed specially for passenger service. The consumption of coal averages about half a tun per day. About three times as much wood by weight is required to furnish the same steam power.

All the road steamers can be fitted with a fly wheel and governor, so as to run as stationary engines for driving any description of machinery.

The British Government appointed a commission of military men to examine these road steamers with the view of adopting them in the War Department. The examination was most severe and the report so favorable that a number have been ordered; among others one to carry stores up the Rock of Gibraltar, the inclines being one in six. Various other European governments have, after careful examination, ordered them for drawing heavy artillery and for other purposes. Over seventy road steamers are now in order at the works in Great Britain for India, Australia, and other countries.

With our vast country so much of which must be for many years without railroads they will be of great use for mines, transportation companies, feeders to railroads, for general carrying purposes, and for towing on canals. One steamer can draw six boats at double the speed of horses. And lastly, in plowing the grain fields of the Great West, as also the sugar and cotton plantations of the South, they will find a wide field of usefulness, and prove of great value. Harnessed to one of Williamson's gang plows they turn seven furrows of eight inches depth and twelve inches width with perfect ease, as we can testify, having personally witnessed the performance of one of them, not long since, in plowing obstinate soil.

Mr. D. D. Williamson, of 32 Broadway, New York, is the exclusive manufacturer under Mr. Thomson's American patents. No better assurance can be given that the American engines will be fully equal if not superior to the British, than the fact that the Grant Locomotive Works, of Paterson, whose locomotive at the great Paris Exhibition took the prize over all others, have contracted to build them for Mr. Williamson, and are now constructing a number for the American market.

THE following is a copy of the protest of the Bishops of the Lower Provinces of British America, against the occupation of Rome by the Italian Government:—

Amid the din of wars and revolutions, such as have had scarcely a parallel in history, it becomes our painful duty, in echo with the whole Catholic World, to raise our voices, at this solemn moment, and to protest with our whole hearts, as we now do, against the recent sacrilegious invasion of Rome and the crimes perpetrated by the Italian Government against the rights of all Catholics, as well as those of the common Father of the faithful. For the past twelve hundred years, Rome was still a portion of Italian soil, but politically, it long ceased to be the fief or province of any empire, or the appanage of any reigning family in Europe. By every law that can consecrate a title to property, Christian Rome, the infallible centre of our Faith, became the inalienable domain of all Christian peoples. It was not Italians alone, nor French alone, but it was the public opinion of Christendom—it was the stout hearts and sturdy arms of all believing nations, that won it, in the first instance, and have since preserved it, amid varying fortunes, for long over a thousand years. The heathen Rome that was, might have slumbered on in bondage with her children, but God willed it otherwise. Rome became Christain, and that Catholic Rome that now is, "is from above, and she is our mother." As well might Italy attempt to raise up an impassible barrier between the child and the parent, as to destroy, as she now does, by the invasion of the Holy City, that full, free and unrestricted intercourse which must subsist between the Holy Father and the Catholics in the remotest region of the Globe. With Rome in the sacrilegious hands of the invader, and with the Pope, at this moment, a prisoner in the Vatican, how is this freedom of intercourse, so essential for the Church, to be maintained? With the post-office in the hands of unscrupulous enemies, and the soldiers and myrmidons of the Italian Government on every avenue leading to the presence of the Holy Father, how is this unfettered and confidential communication to be kept up? How are Cardinals and Bishops of vacant Sees to be nominated—grave disputes to be decided—and all the spiritual affairs of millions of human beings administered without fear of any tampering or interference on the part of Victor Emmanuel or his ministers? Without the bitter experience of the past two months, we may easily imagine the result; but alas, our worst apprehensions are more than realized, as appears from the graphic pen of His Holiness, in the letter dated himself, in a letter dated so recently as the 4th of October. The following is an extract:—

"Our sovereign and uncontrolled power, of which We were in enjoyment, over the public post, in the receipt and despatch of letters, being taken away from Us, and as We are unable to trust the Government that has usurped that power to itself, We are wholly destitute of the means of transacting the affairs, which the Vicar of Jesus Christ and the common Father of the faithful, to whom his children have recourse from all quarters of the Globe, ought to manage and deal with. And this observation is more plainly confirmed by a recent fact, namely, that within the last few days, it has come to pass that those who have gone forth from the gates of the Palace of the Vatican, have been subjected to a search by the soldiers of the new Government, to discover if they carried anything concealed in their garments. Remonstrances were made, but they were met by the pretence of mistake and other excuses."

Such is now the position of affairs at Rome; and in view of so flagrant an injustice, perpetrated under the plea of Italian freedom and nationality—as men of honor and Catholics, and people deeply interested in all that pertains to the Holy See and the well-being of God's religion, we indignantly lift our voices in protestation against so unparalleled a wrong. By intrigue and treachery, and the connivance of those upon whom the vengeful hand of God is at this moment extended, Victor Emmanuel became the master of nearly the whole Italian peninsula, with over twenty millions of a population. The little patrimony of St. Peter, with half a million of a contented, happy people, was the only remnant left to the Church. Italy, as a Nation, did not require Rome; and still less did Rome, or her loyal people, require or wish for any political connection with Italy. The recent plebiscite, like every other contrivance of a Government, true only to falsehood—a Government which, hitherto, belied every profession and violated every treaty—was but a delusion, and is thoroughly understood by those who know, as we do, the state of things in the Eternal City.

Italy had no unsettled claim, no cause of complaint against Rome. There was no rebellion to put down—no threatenings of invasion on her border—but above all, there was no invitation from her citizens to come in. An invading army of 80,000, against a mere handful that were to meet them on the walls of Rome, tells trumpet-tongued the whole story. They were neither wanted nor welcomed by a people who had no sympathy with them in common. The eight or ten thousand camp followers—the dregs of the Italian population—who accompained the invaders, were needed to go through the farce of a popular demonstration, of which we have heard so much, and of the plebiscite delusion, by which it was to be succeeded.

In a word, Victor Emmanuel, the *soi-disant* Catholic King of Italy, has made the Pope a prisoner, and has seized on the property of the whole Catholic Church, with no other justifying reason but that of brute force and, be it said in all truth, that of the mere unqualified rapacity of the highwayman. In the eyes of civilized Europe, the absorption of Holland by Prussia, or of Belgium by France, would have been an intolerable grievance and a just cause for an European war; and yet in the eyes of public justice, the absortion of both together would be nothing as compared with the more glaring outrage prepetrated by a third-rate power like Italy, against the time-honored and religious rights of two hundred millions of Catholics all over the world.

(Signed)
† THOMAS LOUIS, Abp. of Halifax
† COLIN FRANCIS, Bp. of Arichat.
† JOHN, Bp. of St. John, N. B.
† PETER, Bp. of Charlottetown.
† JOHN, Bp. of Titopolis.
(Co-adjutor of Arichat.)

THE RUSSIAN QUESTION.

PRINCE GORTSCHAKOFF'S DESPATCH TO EARL GRANVILLE.—The correspondent of the *Tribune* sends the following as the despatch of Prince Gortschakoff, communicated by Baron Brunnow to Earl Granville, on the 19th of November:—

"BARON,—In making a communication to the Principal Secretary of State of Her Britannic Majesty, presented to you by order of His Majesty the Emperor, you will be good enough to make its import and object clearly understood. When, at the commencement of the year 1866, a conference was talked of for the purpose of preventing a war, then imminent in Germany, by the assembling of a congress, in discussing the basis of it with Earl Russell, you were able to point out to him the compensation and guarantees which certain eventualities, of a nature to modify the *status quo* existing in the East, would render necessary to us. This was recognized by Earl Russell with the utmost fairness. He did not deny that every alteration effected in the text and spirit of the treaty of 1856 must lead to the revision of that document. Although these eventualities have not been realized, Lord Granville will not deny that that treaty has suffered grave modifications in one of its essential parts, which cannot but impress Russia that in those modifications there is a factious and hostile tendency towards her, of which they bear stamp. It is not the consequence that may result to a great country from the establishment of small, quasi-independent states on her frontier; it is, above all, the facility with which, ten years after its conclusion, a solemn transaction, invested with European guarantees, can be infringed in letter and spirit, under the eyes of the very powers which ought to be its guardians. In the presence of such a precedent, what value can attach to the efficacy of this agreement, and to the guarantee of security that she believed she had found in the principle of the neutralization of the Black Sea. The equilibrium established in the East, therefore, is destroyed to the detriment of Russia, and the resolution taken by our august master is to re-establish it. Her Britannic Majesty's Government would never consent to leave the security of it's coast to the mercy of an agreement which is no longer respected, and is too just not to recognize that we have the same duties and the same rights. But what we especially desire to establish is, that this decision implies no change of policy that His Majesty the Emperor follows in the East. You have several times been made to enter into explanation with the Cabinet in London, upon the general views that the two governments hold upon this important question, and to point out the conformity of the principles which we have noted with much satisfaction. We have deduced, therefore, that it is neither from England nor Russia that danger can come which could threaten the Ottoman Empire; that the two Cabinets have an equal desire to maintain its existence as long as possible, by the settlement and conciliation of the differences between the Porte and the Christian subjects of the Sultan, and that in case a decisive crisis should occur, notwithstanding these efforts, both are equally resolved to ask a solution of the difficulty, in a general agreement of the great powers of Europe. We have not ceased to entertain these views. We believe that their complete analogy renders a serious understanding possible between Her Britannic Majesty's Government and ours. We attach the utmost value to it as the best guarantee for preserving the peace and the equilibrium of Europe from dangers which may result from complications in the East. By order of His Majesty the Emperor, your Excellency is authorized to reiterate assurances of this to Lord Granville. We shall congratulate ourselves if the frankness of these explanations should contribute to it, by removing all possibility of a misunderstanding between Her Britannic Majesty's Government and us.

GORTSCHAKOFF."

It is said that the particular violations of the Paris treaty of 1856, which Russia has complained of, are as follows: The cruise of the Prince of Wales in the Black Sea, in an English frigate; a similar trip subsequently by Lord Bulwer Lytton; the appearance of the Austrian squadron at Varna, when the Emperor of Austria was there; and lastly, the voyage of the Sultan in a Turkish frigate. The Russian envoy at Constantinople protested against this latter circumstance at the time, but ineffectually.

Odo Russel was sent to Versailles to ask Bismarck, categorically, if he would acquiesce, and unconditionally, in the rejection of Russia's pretensions. The war party of the cabinet propose, should Bismarck's answer be either negative, or hesitating and disingenuous, to inform Russia that she must choose between the withdrawal of her claims and war; but the peace party of the cabinet suppose that Bismarck, without committing himself further, will propose a congress of all the powers to discuss and decide upon the modifications of the treaty of 1856. The peace party are determined to do all that is possible to induce the government to assent to this arrangement, while the war party are equally resolved to adhere to their position, and a split is imminent. A number of the peace party of the government informed your correspondent on Tuesday, that the administration would finally yield to Russia's demands, since she asked no more than her rights. John Bright's health is still impaired, and he will resign, provided the war party of the cabinet prevails. Odo Russel has not yet reached Versailles, but is expected to arrive to-night.

Diplomats all claim to have known that the demand of Russia would be made sooner or later. Public opinion in Russia is represented to be in favor of peace. English officers are volunteering for service in the Turkish army. It is stated that when the Russian Minister at Vienna communicated Gortschakoff's note to Von Beust, he accompanied it with assurances of the most peaceful intentions on the part of his government. The Pall Mall Gazette, referring to Odo Russel's special mission to Versailles, believes that the under Secretary will return within twenty-four hours with a disavowal on the part of Prussia of sympathy with Russia's pretensions, or will leave behind him assurances that an unsatisfactory reply will be considered equivalent to complicity. The Journal de St. Petersburg declares that Russia will not prove unwilling to submit her demands to a congress, if it can be held immediately. It denies that Russia's note meant the abrogation of the entire treaty. Turkey, it says, is threatened with internal dangers, and intervention is necessary now.

A correspondent of the *Herald* telegraphs from London:—

I have authority for stating that Prussia declares that she views Russia's claims as natural, and that there should be an amicable settlement of the affair, and she cannot see any reason for alarm on the part of the cosignatory powers. Russia might have ap-