The Colonist.

FRIDAY, FEBRUARY 17, 1893.

THE HOME RULE SCHEME.

The Canadian who reads Mr. Gladstone's speech will see that what that veteran statesman considers the most difficult part of his scheme was arranged by the Fathers of Canadian Confederation in a simple, and what has on the whole proved a satisfactory way. In Canada it was settled that the provinces to which home rule was to be extended should have large powers of taxation, and that their revenues should be supplemented by subsidies, calculated at so much per head of the population, from the general government. The Dominion imposes all the general taxes and rates, customs, excise, post office rates, canal tolls, etc., and the officers who collect them are of its own appointment. This plan has worked fairly well. The principal objection has been to the subsidies. It is believed by some that the Provinces should be required to pay their own way and that the general Government should confine its expenditure strictly to matters of general concern. This is the plan pursued in the United States, and it has the advantage of simplicity. It also takes away all excuse from the different parts of the Federation to make raids on the Federal treasury in the shape of demands for better terms.

The financial part of Mr. Gladstone's Home Rule scheme appears to be unnecessarily complicated. He offers Parliament the choice of two schemes. The first is that the Irish Government is to have the collection but not the imposition of all taxes, and is to pay a certain percentage to the Imperial treasury for Imperial purposes. This rate is not to be fixed, but will change with the requirements of the Empire. The other alternative is for Ireland to make over to the Imperial Government the whole of the Customs Revenue of the country. This Mr. Gladstone thinks will be about fair. It is certainly preferable to the payment of a percentage on the Imperial expenditures for Imperial purposes, which has the appearance of tribute paid from a subject country to its conqueror. If there is to be any giving at all the donor should, we think, be the Central or Supreme Government. It should, as in Canada, collect all the taxes imposed for general purposes, and if Ireland pays more than her fair share the balance can easily be refunded to her. It seems to us that either of Mr. Gladstone's plans would, in practice, be attended by many difficulties. It is but reasonable that the government which imposes a tax should collect it.

Mr. Gladstone admitted that his scheme of representation was filled with "thorns and brambles" and when one tries to think it over and to realize what it will be like if the Home Rule Bill ever becomes law he must see that in this, at any rate, Mr. Gladstone is perfectly right.

It must be remembered that the British Parliament does the work both of a Provincial legislature and an Imperial assembly. It does local work for England, Scotland, Wales and Ireland, and it also legislates for the whole Empire. It is not to be expected that Ireland having a legislature to manage its own domestic affairs will be allowed to send members to Parliament to have a voice in managing the affairs of the different parts of Great Britain. Mr. Gladstone foresees the difficulty that there will be in deciding what affairs are strictly English, Scotch and Welsh, and what purely Imperial. It is evident that the only subjects on which the eighty Irish members will be entitled to speak and vote will be subjects that relate to the whole Empire. On those subjects in which any part of the Island of Great Britain is alone interested the Irish members, if they choose to be present while they are being discussed, must act the part of mere spectators. In the Dominion of Canada there is no such difficulty as this, because the Federal Parliament deals with Federal subjects only. Provincial matters are dealt with by the Provincial Legislatures. But under Mr. Gladstone's scheme of Home Rule local matters will be mixed up so closely with Imperial matters that it will often require a Philadelphia lawyer to tell which is which. Here may be seen a prolific source of misunderstandings and quarrels, to say nothing of the opportunities it gives for political scheming. A deliberative body, a considerable number of whose members can take no action on a large class of subjects which come before it, will be a kind of political anomaly, and it is not likely that it will work smoothly. We are not surprised that Mr. Gladstone, seeing the difficulties and perplexities that must arise in such a body, was averse to having Ireland represented in the Imperial Parliament at all. But then to his scheme of 1886, which excluded Irish representatives from the British Parliament, there was this objection which, to free-born Englishmen, was insurmountable—it established a legislative body which had the power to tax British subjects without their having a voice with respect to the imposition. This was taxation without representation, which is contrary to the fundamental principles of British constitutional liberty. Mr. Gladstone, seeing the force of this objection, now gives Ireland, under Home Rule, representation in the Imperial Parliament. It is easy to see that he does so with fear and trembling, for he knows that when Irish representatives are in that body it will be the next thing to impossible to find a place in it which they will be willing to occupy. If the sphere of county government in Great Britain could be so enlarged that nothing would be left for the Imperial Parliament to do but to attend to matters that are of Imperial concern, there would be no difficulty in disposing of the Irish delegation; but as it is, that delegation will be a white elephant on Mr. Gladstone's hands. Those who consider the new scheme as complex and impracticable seem to us to be pretty near the mark. What Mr. Gladstone proposes is neither legislative union nor federal union, but a bewildering mixture of both. To be workable, it should be either the one or the other.

OUT OF TUNE.

The Times, in a tone of affected pleasantry, tries to make little of the Premier's speech on the Public Health Bill. There is very little humor in the article, but a great deal of ill-nature. When the city was in danger from an epidemic of smallpox the tone of the Times was very different indeed. It did what it dared to stimulate the apathetic civic authorities. It "prodded" them, to use its own classical expression. It was then loud in its praises of the action taken by the Government and was evidently relieved when it saw that the dangerous epidemic was being dealt with by men of intelligence, courage and energy—men who knew what to do and were bound to do it. But almost as soon as the danger was over and the city was safe from the ravages of the disease, the Times got over its fright and commenced to disparage the efforts of those whose aid it had invoked to stamp out the disease. It was too small-minded to be grateful, and too envious to appreciate the men who had come to the city's rescue and saved it from a very great danger. We are, therefore, not surprised to see it continuing the same course now. It has nothing but sneers to-day for the Government to whose "drastic remedy" it in July last promised the support of the public.

The Times, like quite a number of other small politicians, considers that re-election, like charity, covers a multitude of sins. It cannot deny that when prompt and plucky action was required of the Mayor to save the city from a great danger, his apathy and irresolution were such as to arouse the indignation of the citizens and to extort a remonstrance from the Times itself. But though Mr. Beaven proved that he was not equal to the emergency he was re-elected, and his re-election is a sufficient answer to all who condemn him for his incapacity in dealing with the visitation of smallpox last summer. Re-election, of course, proves that Mr. Beaven was prompt and resolute when the smallpox was spreading from house to house in the city; that he did all that mortal man could do to stay the plague, and that consequently the indignation and disgust of the citizens were unreasonable, and that the remonstrances and the "prodding" of the Times itself were unnecessary and wholly out of place! Re-election changes everything, puts everything right, makes black white, and transforms imbecility into vigor and capacity! The Times is evidently a devout believer in the apothegm *Vox populi vox Dei.*

THE TARIFF CHANGES.

The Budget speech has, no doubt, disappointed a considerable number of the supporters of the Government. It was expected that the Government intended to lower some duties and to take off others. Many believed that some of the mouldering branches would be lopped off. But if the only changes are those recorded by our Ottawa correspondent there are, in the opinion of the Finance Minister, no mouldering branches; all that the tariff tree requires just now is, he thinks, a little—a very little—judicious trimming. Some alteration is to be made in the charges on coal oil; the duty on binding twine is to be reduced from 25 per cent. to 12½ per cent., and mining machinery not made in Canada is to be admitted free for three years. As for this last concession, it in a great measure depends upon the way in which the law is interpreted by the Customs Department whether it is a valuable one or not. If the officials are exacting in requiring the importer to prove that the machinery he wishes to bring into the Province is not manufactured in Canada the concession will be of little importance to the miners of this Province. On the other hand, if they interpret it liberally, it may be the means of doing much good. We, nevertheless, think that if the Government had remitted the duties on certain specified pieces of mining machinery for the time named without any qualification whatever, the boon to the Province would have been much greater than it is likely to be. It could well afford to do this. As we have seen, this Province pays far more than the average share of Customs duties and the young and struggling mining industry of the Province might be fostered without taking much from the million odd dollars which British Columbians contribute to the Dominion Treasury more than the name number of the inhabitants of any of the other provinces.

But in this matter of the revision of the tariff, it is only right to remember that very little of a permanent nature can be done until it is seen what the trade policy of the Cleveland Administration is to be. It is evident to everyone, whatever his opinion on trade matters may be, that the fiscal policy of the United States must to a greater or less extent influence the fiscal policy of the Dominion of Canada. It has done so in the past and it will without doubt have a similar effect in the future. The postponement of the revision of the tariff until next year was a foregone conclusion, but it was expected that a good deal more would be done in the way of remitting and lowering duties then the Government has determined to do. The Opposition will, no doubt, be jubilant over the course which the Government has seen fit to pursue, but the rejoicing of the Grits need give the Finance Minister little concern, if only the Conservatives approve of what he has done and what he has left undone. If the indications are to be relied upon, Mr. Foster has much more to fear from the disappointment and annoyance of the supporters of the Government than from the sneers and denunciations of its opponents.

A STRONG RESOLUTION.

The course which Mr. Goldwin Smith is pursuing with respect to annexation is strongly disapproved by loyal Englishmen and Canadians in Toronto, as well as in other parts of Canada. They do not think that it is becoming in a British subject and an Englishman to take an active part in persuading Canadians to join the United States and to try to prove to Americans that it is to their interest to take such measures as are calculated to bring about the annexation of Canada. Mr. Smith is a member of St. George's Society. There are gentlemen in that society who believe that Mr. Smith's conduct in this matter of annexation is inconsistent with the duty which its members owe to their Queen and country; one of them, Mr. J. Castell Hopkins, therefore has given notice of his intention to propose the following resolution:

That in view of his advocacy of the annexation of the Dominion of Canada to the United States, his position as president of the Continental Union Association of Toronto, and the treason to his sovereign, to England and to Canada involved in these conditions, this body of loyal Englishmen request Mr. Goldwin Smith to tender his resignation as a life member of St. George's Society, and hereby instruct the treasurer to return to Mr. Smith the fee previously paid for that privilege.

This is looked upon as an extreme step by many persons whose loyalty to Great Britain is above suspicion. It seems to us, however, a question for the members of St. George's Society alone to decide. If Mr. Smith has not violated any of the rules of that society, if he possesses the qualifications of membership, it is hard to see how he can be expelled on account of his political opinions or his political acts.

SLIGHTLY MISTAKEN.

Our correspondent "Naughty Labor" discusses a subject which we did not touch in our article on Capital and Labor. Our object was simply to show that Capital and Labor are not enemies and should not be enemies. We tried to prove that they are inter-dependent and that one cannot prosper without the other, and consequently that those who try to show that they are naturally and necessarily antagonistic are in error, and that their teachings are not conducive to the general welfare.

What Labor is entitled to receive is a subject which we did not touch. Our correspondent evidently believes that the wage-earner is entitled to more than the sum he agrees to work for. He argues that he should have a share of the profits of the business into the bargain. The profit-sharing system has been tried, but it has not been notably successful, for the reason that though the worker was quite ready to take his share of the profits when there was gain, he was not willing to bear his share of the loss when losses were incurred. But in a partnership concern—it is no matter who or what the partners are—all must bear the losses as well as share the gains. But this is a totally different subject from the one we attempted to discuss, and we are glad to see that "Naughty Labor," who is *bona fide* a workingman, does not hold that Capital is the enemy of Labor.

Our correspondent questions the correctness of our assertion that Capital runs all the risk whether the enterprise pays or does not pay. He says if an employer sinks half of his capital in an enterprise and loses it, he has still the other half to live upon. That is quite true. But what does the man he employed lose, what risk did he run? While the work was going on he received his wages, whether they were high or low. He was benefited to that extent. The wages were paid out of capital which his employer lost, and when the work ceased the laborer had his savings if he had been provident, and even if he had saved nothing he was just where he stood when the losing concern commenced operations. He had lost nothing at all. The losing undertaking afforded him a living for a period, long or short, and he was so much to the good. But the capitalist had to begin the world again crippled.

Under the system which our correspondent favors, the worker would not have escaped so easily. He would be required to bear his share of the loss, and as he had no capital to risk he would have to lose part of his wages. He worked on the shares, and as there were only losses to share he would be in the same condition as the capitalist, and would have to seek work again with a load of debt on his shoulders.

A COMMON-SENSE VIEW.

President Harrison seems determined to make the end of his term remarkable by his exhibitions of dislike to Canada and everything Canadian. He has been fulminating against the privilege enjoyed by Canadian railroads in carrying across the border goods in bond. He appears to be as jealous of Canadian railroad competition as if he were himself a member of an American railroad ring determined to monopolise the traffic no matter who suffered.

It is well known that the Canadian railroads afford United States citizens accommodation which they prize highly, and which they do not want to lose. Those roads are their great safeguard against extortion. Many Americans know this well, and are consequently opposed to the legislation recommended by President Harrison.

The San Francisco Argonaut, which can hardly be accused of having a leaning towards Canada or of being disposed to favor anything British, takes an enlightened view of this transportation question. In a late number it says:

Time was when trade was regulated from a short-sighted view of patriotism. England refused to permit wool to be exported in order to prevent Antwerp and Florence from making woollen cloth. Spain prohibited the importation of French manufactures on the ground that the peninsula was depleted of coin to pay for them. Genoa destroyed the Venetian navy in order to monopolize the carrying trade of the Mediterranean. Modern opinion does not justify such arbitrary interference with commerce. If it pays to ship the products of California to Illinois by way of Vancouver and Manitoba, the executive at Washington would travel out of its province if it undertook to stop the traffic, or if it hesitated to smooth the way by suspending the arbitrary restrictions on trade imposed by the customs laws.

Trade, if let alone, will follow the lines of least resistance. It will take the shortest lines, the lowest grades, and the smoothest routes. It will go by water in preference to going by land, because water transportation is cheapest. It will prefer a straight to a curved line. It will travel through a country which is occupied rather than through one which is empty, because way traffic is a useful adjunct to through traffic. For these reasons, it is unlikely that the Canadian Pacific can be an abiding competitor for transcontinental traffic between points in California and points in Illinois or New York. If it attempts to grab a share of it, by violating the laws of trade and doing business at a loss, it must sooner or later come to grief, and the Canadian Government can not undertake to defray its losses without committing an act of hostility to the country, which sooner or later would provoke reprisals. If, therefore, things are let alone, the transcontinental traffic will naturally drift into the hands of the American lines, and that portion which the Canadian enterprise has secured by doing violence to logical principles will return where it belongs. But any attempt to bar out the Canadian line by depriving it of the bonding privilege would not only indicate an unbecoming fear of its competition, but would retard the operation of natural laws.

The Argonaut is mistaken if it supposes that under any circumstances the Dominion Government would undertake to "defray" any of the losses of the Canadian Pacific Railway. The Canadian Government has no more to do with the running of the Canadian Pacific than it has with the running of the Northern Pacific. Canadian trunk railways are operated altogether independently of the Government. They are merely commercial corporations which manage their own business to suit their own interests. If they make money the profit is wholly theirs, and if they lose they will have to bear the loss. It is hard to make Americans understand this. They have got it into their heads that the Canadian Pacific, particularly, is a "subsidized" road, and that it is not run on purely commercial principles, but depends upon Government for its profits. The Canadian Government contributed towards the construction of the Canadian Pacific as the United States did towards the Union Pacific, but there its aid ended. When the Canadian Government or the Imperial Government uses the road it pays for the work done like any other customer. What the extent of the patronage of these Governments is we do not know, but it certainly is not great. But barring the money it fairly earns, the C. P. R. does not get a single dollar from either the Dominion or the Imperial Government.

Some Interesting Contests.

The committee on arrangements for the K. of P. entertainment in the Market hall next Saturday, met last night to report progress. The rules governing tug-of-war tournaments published in yesterday's COLONIST were adopted. They are practically the same as those used in the great International contest at San Francisco. Five teams are entered so far. Sunset lodge will pull Far West lodge. The Firemen are matched against "C" Battery. The N. R. T. & L. employes are arranging to send in a team.

Among the novelties will be a pole climbing contest, a pie biting match and a shoemaking match. The firemen's team will be composed of: Foreman D. Henry, anchor; Engineer C. Bush, stroke; Hosemen H. Petticrew, J. Hay and J. McMullen. Hook and Ladder men W. Randall and C. Palmer, Electrician T. Watson, Tillerman F. Leroy, Driver L. McNeill.

Every lady visitor will be given a ticket entitling her to a chance in the drawings for prizes offered by the K. of P. Arrangements have been made to provide comfortable seats for all.

The Uniform Rank will form at their hall at 7:15 p.m. and parade, then march to the Market hall. The V.A.C. band, which will furnish the music, appear for the first time in public.

WASHINGTON, Feb. 14.—The bill to secure the construction of the Nicaragua ship canal, occupied the attention of the Senate yesterday. It provides that 3 per cent. bonds of the company to an amount not exceeding $100,000,000 shall be guaranteed (principal and interest) by the Government of the United States. These bonds are to be issued as money is actually paid out and expended by the company in the construction of the canal. The Government is then to own the capital stock of the company, with the exception of $12,000,000 of it, which is to be retained by the company, except the shares to be delivered to the governments of Nicaragua and Costa Rica. The importance of this guarantee by the government was demonstrated in a speech by Mr. Frye, Rep., of Maine, who undertook to show that the work would, with the guarantee, be fully completed at a cost of $700,000,000, and that its fixed charges would only be $5,000,000 a year (outside of a sinking fund), whereas without the guarantee the cost would be not less than $200,000,000, and its fixed charges $14,000,000 a year. Mr. Morgan, Dem., of Alabama, discussed the diplomatic features of the measure, which went over without action till to-morrow.

For Over Fifty Years.

MRS. WINSLOW'S SOOTHING SYRUP has been used for over fifty years by millions of mothers for their children while teething, with perfect success. It soothes the child, softens the gums, allays all pain, cures wind colic, and is the best remedy for Diarrhœa. Is will relieve the poor little sufferer immediately. Sold by Druggists in every part of the world. Twenty-five cents a bottle. Be sure and ask for "Mrs. Winslow's Soothing Syrup," and take no other kind.

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THE DOMINION MILITIA.

General Herbert Presses for the Higher Education of Officers of the Schools.

A New Rifle Cannot Be Issued Without Lengthy Preliminaries—Local Comments.

The annual report of the Militia Department has heretofore covered the calendar year. For the future it will, like all other departmental reports, be for the fiscal year, ending June 30. In consequence of the change a supplemental pamphlet has been issued dealing with occurrences of the first six months of 1892, and the official reports on the drill for the past season will not appear until next fall.

STANDARD FOR PERMANENT OFFICERS.

General Herbert in this supplement emphasizes his former recommendations to the Minister, and in addition offers many striking suggestions. He thinks that at least the permanent force—represented in Victoria by "C" Battery, R.C.A.—should be more than amateur soldiers: "There is much," he says, "yet to be done to bring this small force up to the level of the important duties devolving upon it. I regret that it has not been found possible to give effect to my recommendations, tending towards the higher education of the officers, and I submit these again for your favorable consideration. The officers of the permanent force must be professional soldiers, and to attain that character they must devote themselves to the serious study of the profession they have adopted. They have little to look forward to in the way of material advantages, and they have therefore the right to expect that the means be provided to them for that education by which alone they can become fitted to perform efficiently their duties as instructors of the militia."

SERVICE REWARDS.

As an encouragement to the members, General Herbert notes that the Imperial Government has expressed its willingness to confer medals for long service and good conduct on non-commissioned officers and men of the Canadian permanent force under conditions similar to those governing such rewards in the regular army.

RESPONSIBILITY OF VOLUNTEERS.

Absence without leave from inspection, the Major-General remarks, has grown into a serious abuse in certain city corps, and measures have been taken to check it, so that any attempt to raise the standard of efficiency in those corps may not be rendered abortive.

A system of competition has been established in some of the districts, and prizes for the corps making the best showing have been offered by Sir Donald Smith in Montreal, and Sir Casimir Gzowski in Toronto district. General Herbert hopes to see prominent men come forward elsewhere with similar prizes, which are not expensive and are in the nature of challenge trophies to be held from year to year by the annual winners.

THE PROPOSED NEW RIFLE.

It would seem that there are several lengthy preliminaries that must be attended to before the much abused Snider rifle can be withdrawn and replaced. General Herbert says:—

"An inquiry has been instituted, which is still proceeding, with a view to ascertaining the most suitable small-bore rifle and carbine with which to re-arm the militia. There are, however, two points of the highest importance which have to be considered in connection with this question: There is at present a considerable reserve of Snider ammunition, and the supply is maintained by the Dominion Cartridge Factory. In order to manufacture the ammunition required for a modern small-bore rifle, considerable changes of machinery would be necessary, while the smokeless compound which has taken the place of gunpowder in the modern firearm could not be procured in Canada.

THE LACK OF RANGES.

"There is not more than one rifle range in Canada on which practice could be carried out to the full effective range of a modern rifle. There are few that admit of practice at a longer range than 600 yards. The existence of abundant means for practising rifle shooting is as necessary a condition for attaining efficiency as is the possession of good weapons.

"While earnestly desiring to see the introduction of a better fire-arm, I cannot but recognize that it would be a fruitless expenditure were modern weapons placed in the hands of the militia without due provision for the supply of ammunition to be used with them, or for the means of instructing the men in their use."

REPORTS ON LOCAL CORPS.

The British Columbia Brigade of Garrison Artillery and the Nanaimo Infantry Corps were among the few who did not complete their drill for 1891-92 in time for the publication of the inspection report in the volume for that year. They completed that drill in May last, target practice being omitted, and the acting Deputy Adjutant-General, Lt.-Col. Holmes, said of the Artillery: "The headquarter batteries performed battalion drill under the Major fairly well. All the clothing of these batteries is worn out. The accoutrements are old and of several patterns. New issue recommended." His report by batteries was:

"No. 1, Capt. Townley—This is a very good battery; ranks first in Brigade in efficiency. Company drill, manual and firing exercises, well done. Armory well kept and interior economy very good.

"No. 2, Lieut. Sargison—This battery showed two well drilled gun detachments. Battery in good order; ranks third in Brigade in efficiency. Company drill, manual and firing exercises well done. Armory well kept and interior economy fair.

"No. 3, Capt. Quinlan—Battery in fair order; ranks fourth in Brigade in efficiency. Company drill, manual and firing exercises fairly done; armory well kept, and interior economy poor.

"No. 4, Capt. Smallfield—Battery in very good order; ranks second in Brigade in efficiency. Manual and firing exercises and company drill well done. Armory well kept; interior economy very good."

GENERAL HERBERT'S COMMENT.

The General Officer Commanding thus modifies the reports above quoted: "The remarks of the D.A.G. can only be accepted in a relative sense. The Brigade is not in a satisfactory condition, though this is not due to any want of zeal on the part of the officers, who have had great difficulties to contend with. To obtain any degree of efficiency, the establishment must be increased and organized on a sound basis."

The Nanaimo Infantry Company is thus commented upon by General Herbert: "At my inspection on the 8th September the state of organization of this company appeared to be very imperfect, and proper steps had not been taken by the D.A.G. to put it on a proper footing."

SCIENTIFIC MISCELLANY.

BACTERIA AND FLAVORS.—Researches of Suchaland show that the process of "sweating" to which tobacco leaves are subjected in preparing them for use gives rise to fermentative changes that are not due to purely chemical action, as has been supposed, but are effected by micro-organisms. The species vary in different kinds of tobacco. But what is most important is that pure cultures of the bacteria have been made, and with them it has been found to be possible to transfer the peculiar taste and aroma of one kind of tobacco to another kind, and thus to raise the quality of inferior grades. Other German investigations during the last few months prove that the character of wine varies with the yeast employed. As the qualities of butter and cheese depend also upon micro-organisms, is it not possible to improve dairy products as well by inoculations with cultures of carefully selected bacteria?

THE WEATHER AND PNEUMONIA.—From statistics of many years, Dr. P. J. Kolski finds that, though the weather may not be the main cause of croupous pneumonia, as was formerly belived, it plays a not unimportant part in the development of the disease. Abnormal weather in general has an influence. In Moscow the most favorable conditions for the prevalence of pneumonia seem to be a low temperature with slight daily variations, abnormally high barometric pressure, a north wind of less than usual force, and a small amount of rain or snow. High winds and much moisture, contrary to general belief, do not favor pneumonia.

Somewhat different physiological action has been ascribed to theine from tea and caffeine from coffee, but two British chemists have just made experiments that are held to establish the complete identity of theine and caffeine. The observed differences in effects are supposed to have been due to impurity of the alkaloid, or to variations in the animals.

A French company's plan for lighting the Atlantic route from Ireland to Newfoundland consists in mooring ten powerful floating lights 200 miles apart, and connecting them by electric cables.

A NEW FIBRE.—It is expected that a considerable quantity of a new fibre from Cuba will be produced this year, an experimental lot of fifteen tons having sold for about $250 a ton in the London market. The plant, which is abundant, belongs to the aloe species, and is a variety of the plant which yields the sisal hemp of Mexico. The leaves of the Cuban plant have resisted the ordinary methods of decortication, but in a new machine, the invention of Mr. W. E. Death, the fibre is rapidly separated in a bath of gently flowing water, which is necessarily applied just after the leaves are broken up by the beaters. The Cuban hemp is admirably adapted for cordage, floor coverings, etc.

PASTEURISM IN AUSTRALIA.—A source of great loss to Australian farmers is the pleuro-pneumonia of cattle. Protective inoculation against this disease is extensively practised, a lymph being now obtained in large quantities by a method of inoculating calves suggested by Pasteur. A report of the Pasteur Institute of Sydney shows the efficacy of this practice. A herd of 2000 inoculated and 19 uninoculated cattle was driven some 1200 miles, when it was found that not one of the inoculated animals had contracted pleuro-pneumonia, although 8 of the 19 unprotected ones had succumbed to it.

Different authorities, according to Prof. Kernot, a Victorian engineer, give estimates of the average weight of a crowd ranging from 41 to 147.5 lbs. per square foot. Prof. Kernot's conclusion, from actual experiments, is that a dense crowd of well-grown men weighs between 140 and 150 lbs. per square foot, each man occupying about a square foot of space.

THE LATEST FROM MARS.—A summary of what we know about Mars, so far as its physical condition is concerned, appears in the conclusions drawn by Prof. W. H. Pickering from the observations made in Peru during the recent close approach of our most earth-like planetary neighbor. This astronomer finds it evident that the white caps covering the poles, and believed to be snow, are really a distinct phenomenon from the cloud formations. Clouds undoubtedly exist. They differ somewhat—chiefly in density and whiteness—from those of the earth, and they reach heights of not less than twenty miles. The atmosphere is inferred to be less dense than that at the earth's surface, but not as much as ten times less. The planet has two permanently dark regions, blue in color, that are presumably water. The other shaded portions undergo changes of color not to be explained by clouds, being sometimes greenish and absolutely colorless at other times. Green regions are sometimes seen near the poles. Numerous so-called canals—some only a few miles wide—exist substantially as described by Schiaparelli, but no conspicuous doubling was seen at this opposition. Branching dark lines run through the lighter shaded regions, and may mark river courses, though too wide for the streams themselves. An especially interesting observation was that of numerous black points scattered over the planet's surface, chiefly on the side opposite the two seas. Over forty of these points were discovered, nearly all at junctions of the canals with one another and with the shaded regions, their diameters ranging from 30 to 100 miles. For convenience these spots are called lakes.

RUSSIAN SUNFLOWERS.—The cultivation of sunflowers in Russia was begun in 1842 at Varonezh. The industry has proven so profitable that in 1881 not less than 367,800 acres had been given up to it, and in 1887 the area planted had increased to 704,500 acres. The chief product is the oil from the seeds. The residual cake has considerable value and is in constant demand from abroad, while the shells or husks of the seeds, as well as the stalks of the plants, are useful for fuel.

The temperature of the electric arc, as recently determined by M. Violle, is 3500° Cent.

A tableau curtain of crystal prisms lighted by electric lamps is a scenic novelty of London.

The new sloop being built by the McPhee Bros. is almost ready for launching, and it is expected she will be floated inside of a few days.

ACROSS CENTRAL ASIA ON WHEELS

Two adventurous Americans hailing from St. Louis, Messrs. Allen and Sachtleben, have just accomplished what is probably the most remarkable bicycle journey on record. According to a correspondent of the North China Herald, they reached Paoting Fu, about three hundred miles south-west of Peking, on October 29, having travelled the whole of the way from Constantinople (with the exception of the stage across the Transcaspian Desert) on safety bicycles. It will be remembered that a similar journey was attempted a few years ago by another American, Mr. Stevens, who was sent by the New York World to cross Asia on a bicycle, but failed. It will be extremely interesting to hear how Messrs. Allen and Sachtleben surmounted the enormous difficulties incident to such an undertaking.

Leaving Constantinople last autumn, they proceeded by way of Teheran and Askabad to Merv, Bokhara, and Tashkend, where, by the kindness of the Russian authorities, they were allowed to winter. It is needless to say that during their stay in Russian Turkistan they gathered much valuable information. Leaving Tashkend in May, they crossed to Kuldja in Ili, where they were delayed seven weeks, waiting for supplies by Russian post from Siberia. Here they were strongly dissuaded from attempting the journey across China, and were assured that the enterprise would cost them their lives. Nevertheless they started in midsummer, knowing no Chinese, and carrying only such supplies of money and clothes as could be strapped to the handle bars of their machines. They were twelve days in crossing the desert of Gobi, the sand being firm enough for them to ride the greater part of the way. After crossing the desert they followed the course of the Great Wall for nearly 400 miles to the south, after which they turned southeast to Paoting Fu. Continuing to Pekin and Tientsin, their journey across Asia would be completed. They were next to take steamer by way of Shanghai and Japan to America.

The journey was remarkably free from accidents. Their bicycles, which were pneumatic tyred, would have held out almost without breaking had not the hind wheel of one of them been kicked by a mule shortly before reaching Paoting Fu. They were followed by mobs, chiefly good-humored, on many occasions, but only once or twice suffered actual molestation. At these times the flooring of their chief opponent and once or twice the display of the revolvers which they carried, but never used, proved sufficient to bring them out safely. The officials (thanks to the excellent credentials furnished by the Chinese minister to England) showed them the greatest kindness, and, in the eastern provinces, often gave them an escort of cavalry, apparently more as an honor than for protection. One magistrate gave them officially stamped squares of cloth to hang on the machine handles, bearing the characters *yu li wen jen*—travelling scholars—and telling to all and sundry their nationality and destination, somewhat as one fastens a tag upon a child consigned to distant friends. In no cases did the *literati* or officials show themselves unfriendly, and on one occasion, when no barricading of the inn doors sufficed to keep out the inquisitive mob, the bicycles were sent under guard to the Governor's official residence, where they remained in safety until their owners were ready to proceed. It is needless to say that the travellers carried the inevitable Kodak, with which they took a great number of photographs, to be used in illustrating the book which they will publish. Messrs. Allen and Sachtleben are quite young men, having only lately completed their college course.

NAPOLEON'S MOTHER.

The relationship between Napoleon Bonaparte and his mother, the Mme. Mere of imperial times, was peculiar. Mme. Letizia, who was thirty-four when her famous son was born, had always been complete mistress of her household. Even when her son was emperor and his word was law, willing as she might have been in public to do him honor, in private she insisted on the privileges of her motherhood. Baron Larrey, in his historical essay, writes: "One day there was a family meeting, and Napoleon gave his mother his hand to kiss; but Mme. Mere moved aside the proffered hand. Napoleon then took his mother's hand and kissed it, and she said to him: 'Sire, you know quite well that in public I must treat you with due respect, because I am your subject; but in private I am your mother.'"

STRICT DISCIPLINE.—Sheridan and Grant were traveling on a steamboat together, with other officers. Among the passengers was a young Englishman who used to take a hand at poker with them. The usual limit was fifty cents. The Englishman one day wanted to go out and get a cigar, and asked General Sheridan to play his hand while he was gone. It was four jacks pat. The Englishman, when he returned, asked General Sheridan how it had panned out. "Oh, the general bet me fifty cents," said Sheridan, "and I called him and he won the pot." The Englishman looked in amazement. "Well," he said, "I have heard of military discipline, but I never heard of it going that far."

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