

The Free Press, LONDON, ONT.

Monday, September 1, 1890.

A FORMIDABLE OBSTACLE.

It is futile to recite the experience of Canada under the reciprocity treaty of 1854 as a reason why such an arrangement would be satisfactory now. The causes which actuated the Americans in abrogating the treaty exist even more strongly to-day. To begin with, a report was presented to Congress in 1880 by Mr. James W. Taylor, who is now U. S. Consular Agent at Winnipeg, which analyzes the causes then lying at the basis of dissatisfaction with reciprocity. It is one of the best of the many treatises which were presented from time to time on the subject. Mr. Taylor says:

"The attack upon the policy of reciprocity can be traced exclusively to one quarter. The shipping interest of New York and Philadelphia and the lines of transportation between those cities and the west. The importing and railway interests of the two states (New York and Pennsylvania) are apprehensive of the competition of the G. T. R. and the navigation of the St. Lawrence, and the north-western and even the Mississippi States must be forced by the abrogation of reciprocal trade and navigation to pursue certain channels of communication."

Against this feeling in the East, the Chicago Board of Trade raised a vigorous protest, and argued, with considerable force of reason, that the trade of the West should not be hampered by being forced to follow unnatural channels to the seaboard. The interests in the States referred to, however, maintained the agitation and were at the back of the abrogation in 1885. Hon. Israel T. Hatch was a joint commissioner with Mr. Taylor to report upon the operation of reciprocity, and he took the view that Canada could not get along without reciprocal trade relations with the United States. He reported:

"For more than half the year the rigor of the Canadian climate debars her from commercial exchanges with any other country except the United States, or through our territory, preventing her during that period from taking advantage of a rise in the market. She is placed in the position of a farmer who has only one customer. Abrogate the treaty as soon as possible."

And he argued that if that were done Canada would very soon be on her knees before the United States. He also informed Congress that a railway over Canadian territory, connecting the North-west with the older Provinces, was an absolute impossibility. He shared the views of the Liberals in that regard; but the C. P. R., in active operation since 1885, shows how low an estimate he and they had of Canadian enterprise and engineering skill. Other prominent men were also of the opinion that if the treaty were abrogated annexation would be sure to follow. Canada would be helpless, and what else could she do?

Nothing has since happened to reduce the competitive power of the Canadian railways and lines of navigation, as against the lines of the Eastern States; but a great deal has been done to increase it. First the Intercolonial was built, bringing the Maritime Provinces into touch with Western Canada, and in 1885 the C. P. R. was finished. A direct line over Dominion territory was thus established from sea to sea. Our canals have been increased in number and deepened, while from the Trunk lines of railway thousands of miles of ranches have been constructed. In a word we have equipped ourselves with ample facilities for carrying on a vast internal and foreign commerce. Therefore, the causes which created so much jealousy in 1850-55 would be felt in a very much higher degree were reciprocity in operation to-day. It was the belief of American public men in 1855 that we should be quite unable to hold the North-west and develop it except by means of communication running over United States Territory. And they had mapped out elaborate schemes whereby that enormously valuable part of the Dominion should be made tributary to the Eastern States and their railway interests. One valorous American presented a report showing how a thousand Minnesotans could take and hold the entire North-west for the United States. In fact, there is abundance of evidence to show that from the United States standpoint Canada was thought to have reached a stage of development when she was ripe for picking. Their idea was, that when the supporting prop of reciprocity was removed the plum would drop into the basket held ready for the purpose.

But the plum did not drop. Looking back at the causes which aroused American hostility to the treaty of 1854 and realizing that those causes are actively operative to-day, it is a fair question to ask whether there is any real hope of a fair measure of reciprocity now? The candid student of international trade history and prevailing forces must reply in the negative. There is no hope. The enmity of American railway interests would be turned against the proposition now with tenfold greater potency than in 1855. Our splendid carrying equipment fits us for greater rivalry now than then. What the Chicago Board of Trade recognized as the natural route of the Western States to the seaboard is just as much their natural route to-day. And we must never forget that it is the nation having these enormous interests to be interfered with by reciprocity that Canada would have to make a bargain with. There were, of course, other factors in the general cause which led to the abrogation of the treaty of 1854; but, for the present, we wish to emphasize the important part played by the transportation interests of the Eastern States in the past, and to show that they still stand as a formidable obstacle in the way of reciprocity.

THE EARTH'S VAPOR ENVELOPES.

In an intelligent article on "The Earth's Vapor Oceans," a writer in the New York Herald states that we are in the period where the air of this hemisphere is most densely charged with aqueous vapor, the breeder of the most deadly hurricanes. The reason is that the temperature of the oceans, and consequently evaporation from their surfaces, now reaches the maximum. Mr. Rupert Smith, an English meteorologist, finds that on the average the effect of solar radiation is greatest September 3. England then and our Atlantic Coast a little earlier experiences for a short time what would be the constant state of its climate if the sun moved on a plane coincident with the earth's equator. A new and beautiful science, which the Herald ventures to propose, might be constructed if an attempt were made in all countries to determine the distribution of the vapor atmosphere at different seasons of the year. When Humboldt, in 1817, proposed the construction of "isothermal lines" showing the distribution of heat over the globe, a new and highly important epoch of terrestrial physics dawned. Much as Humboldt's great scheme did for meteorology, far more has been done for it by Buchan's scheme of "isobarometric charts," brought forward in 1889. By these he exhibited the geographical distribution of atmospheric pressure—the aerial plateaus, ridges and valleys, undergoing regular changes with the movement of the sun in declination. But new and far more important results than have been derived from either Humboldt's or Buchan's methods remain to be gathered from the scientific study of the earth's vapor atmosphere. Up to the present moment this is a field of research which has been barely touched by modern science. Could we view our planet on a perfectly cloudless day from the moon we should have little difficulty in penetrating the earth's atmosphere of dry air. But the earth has a second, less elevated and much less evenly diffused, atmosphere of vapor, which would be more opaque to vision. Regions where vapor is accumulated would appear (partly owing to the invisible high cirrus clouds) comparatively brilliant and ruddy, while regions over which the vapor atmosphere is very sparse would appear darker and comparatively colorless. From this lunar view point, where the light from the earth would be thirteen times brighter than that of a full moon, we should very distinctly see suspended above the earth a vast system of immense vapor seas, equatorial currents, Kuro Siwo and Gulf Streams of vapor, and perhaps even minor masses, forming Mediterranean, the Amazon and Mississippi of the vapor atmosphere—all more or less continuous with the underlying fluid masses of the surface which constitute the Atlantic, Pacific and Indian oceans, and the lesser bodies of water on the planet. For example, when the eye fell upon the basin of the Mexican Gulf it would discover a large, well stored reservoir of suspended water gas, ceaselessly fed by the evaporation from the tropical ocean; and from it a vapor plane extending northward over the Mississippi Valley to the lower lakes—the prolific source of energy for all our destructive Western cyclones and tornadoes. We could distinctly trace the Gulf Stream by the superincumbent vapor Gulf Stream, which lends its terrible forces to the hurricanes of the North Atlantic. But if our supposed moon-view could be protracted through an entire revolution of the seasons we should see changes in the distribution and density of the terrestrial vapor masses. Even if throughout the year not a single cloud was formed on the globe the shifting and oscillations of the entire network of vapor seas and streams would be very perceptible. Wonderful as the arterial circulation of the earth's liquid oceans might have been in the studies of the lunar observer he would be dazzled and overcome with emotion at the discovery of its marvellous tinted vapor oceans and interlocking streams, and their seasonal changes, and oscillations comparatively unknown to science. To gain an insight into these now mysterious phenomena it is not necessary to send observers to the moon. If systematic observations of the absolute humidity of the atmosphere were taken and published by all the weather services of the world it would soon be possible to construct vapor charts of the globe of greater value for all purposes of climatology, weather prediction and storm warning than Humboldt's isothermal or Buchan's isobarometric charts. Dr. Buchan himself not long ago said: "Since the chief disturbing influences at work in the atmosphere of the forces called into play by its aqueous vapor, a knowledge of the geographical distribution of this constituent is of the utmost possible importance." Until more is known of its geographical distribution in different months of the year, as well as of its eccentric distribution and driftings from day to day, no great advance in accurate weather and storm prediction is possible.

The September number begins the tenth volume of the *Forum*. Of educational value is the article by Edward Everett Hale, who writes the autobiographical essay this month on "Formative Influences." Among the influences which he classifies as the most important in his career is his newspaper training. Professor Young, of Princeton, explains "The latest Astronomical News," reporting all recent discoveries and advances that have general interest. Another article of the same general kind is "Protection Against Tornadoes," by Lieut. John P. Finlay, who has charge of the government work on this subject. He explains the causes and characteristics of storms and presents the latest conclusions reached by special study of them, together with practical advice for the protection of life and property. Simon Sterne, the well-known railroad lawyer and writer on economical subjects explains the waste in the present methods of railway reorganization, and makes clear to the lay mind the mysteries of railroad manipulation. Professor John Stuart Blackie, of Scotland, laying out the lines of the Christianity of the future, from an orthodox point of view, points out the chief hindrances to a true development of the religion of Christ that have been encountered by the churches.

CURRENT TOPICS.

Ninety barrels of the yolks of eggs were an odd importation from Syria to Paris. The yolks are to be used in the preparation of leather of very fine quality.

Late advices from Australia state that:—"The weather has been, up till now, all that could be desired for the crops. The absence of severe frosts has allowed them to get well up, and they are now strong enough to stand our severest frosty nights. Altogether, farmers are hopeful of a bumper harvest."

New York Press:—Senator Aldrich's proposed amendments to the Tariff Bill, providing for reciprocity in sugar, coffee, molasses, tea, hides and fish, by authorizing the President to suspend freedom of importations thereof from nations whose laws may be reciprocally unequal and unjust, are probably very near the legislation that will be finally agreed on.

A lady of Maine now declares that she understands the use that fashionable young ladies sometimes make of belladonna, although she found it out by accident. She was pouring "the drug from one bottle to another when a drop flew in her eye. Immediately the pupil enlarged itself, and for three days had one large eye and one small one. At the end of that time the influence of the drug passed away, and the eye resumed its natural condition.

The harvest moon is the full moon on or nearest the autumnal equinox, and is regarded as particularly favorable to agriculturists, because after it falls it rises from night to night more nearly after sunset than any other full moon of the year, thus prolonging the light needed for securing crops. As the harvest moon does not arrive until September 28th our satellite will this year lend her aid to farmers almost to the utmost of her ability.

A pocket telephone has been introduced in Berlin. The idea upon which its use is based is that electric bells are found everywhere, and there is no reason why they should not be used for telephoning as well. The pocket telephone is to be connected to the bell wires of hotels and hospitals as well as private houses, and it is claimed that people will be able to speak to distant places by simply taking their telephone out of their pockets as they would their watch.

During a thunder storm in a Colorado lumber camp a Mexican was struck on the head by lightning, which ran down one side of his face, over the shoulder, transversely across the breast, down around one leg, and out through the shoe top. His face was badly burned and the course of the current over him was marked by a red brand. His clothes were torn from him and the sole of the shoe completely torn off. He lay apparently dead and was left at the place until the storm was over. After lying in the rain for two hours he was resuscitated and is now as well as ever except for the burn.

In Rochester the street railway lines are being changed into an electric system. The inhabitants of one of the principal avenues thought that steel poles would be more sightly than wooden ones, and petitioned the Council to allow them to be erected. The superintendent of the fire alarm system opposed the application on the ground that the chances of fatal or serious accidents in cases of broken electric light wires coming in contact with the trolley wires would be greater with steel than with wooden poles. The Council Committee shrewdly thought that with proper connections there should be no danger from this source, and granted the request of the property owners.

The famous plunge bath at Helena, Mon., has no equal on the continent, writes a correspondent. Natural hot springs discharge about a million gallons of water daily for the great bath, which is located under a separate structure of Moorish architecture, painted in Oriental colors, and lighted and adorned by 2,000 square feet of stained glass. The size of the building is estimated from the fact that the plunge is 100 feet wide by 80 feet in length, the glass roof being 100 feet above it. With its surroundings of mountain scenery and flowers and trees and fountains, the great bath is a picture of vision of Oriental luxury amid the wilderness.

The Volapukists, lately in session in Boston, claim 50,000 disciples, of whom about one-tenth are entitled to be called experts. These 50,000 are scattered about the world more or less, but are chiefly gathered in several cities where the Volapuk craze, like the Isen fad, has been epidemic. It is claimed for Volapuk that it will become the universal language after a little more time. But in the race for universal Volapukism to be far behind English, and in danger of being discarded, for already it is said that there are not more than a few thousand square miles of territory in the interior of Asia, where English will not pass current with at least one person in every community. It seems as though persons who have surplus time for the study of language on their hands would do better to cultivate a good speaking acquaintance with the English language proper than to trifle with a mongrel creation that has no abiding place on the face of the earth.

The experiments in the cultivation of plants under the electrical light, recently made by the botanical department of the Cornell University, have given some curious and interesting results, and results which are in some respects confirmatory of somewhat similar experiments not long ago reported from Russia. The first and most noticeable effect of the treatment is an enormously increased rate of growth. The plants which are lighted seem to work day and night, and to "run very much to lead." Vegetables shoot up very quickly, and peas in a few weeks are two or three times as tall as those planted at the same time in daylight. In the case of seeds and fruit of any kind, however, the results are entirely different, and the plants which had grown slowly and by daylight were ahead. It was observed that in every instance the reproductive powers of the plants were strongly affected, being sacrificed to mere foliage and rapidity of increase in general size.

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J. HICKSON, General Manager, Montreal, August 20th, 1890. YH22c



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SEPARATE TENDERS (IN DUPLICATE)

For supplies, coal, fuel, wood and services for the above corps, during the calendar year 1891, will be received by the Minister of Militia and Defence, at Ottawa, on Monday, 8th September.

Tenders to be addressed to the Minister of Militia and Defence, at Ottawa, and marked "Tenders."

For particulars and forms of tenders apply to Lt.-Col. Smith, D. A. G., London.

The successful tenderer will be accompanied by an accepted Canadian bank cheque for an amount equal to five per cent. of the total value of the contract. This cheque will be forfeited if the party making the tender declines to sign a contract when called upon to do so, or if he fails to complete the services contracted for at the time of such distribution. — MACMILLAN & CAMERON, Solicitors for the Executor. Dated at London this 13th day of August, 1890. H14v.

A. BENOIT, Secretary, Department of Militia and Defence, Ottawa, 22nd August, 1890. H28b

IN THE MATTER OF THE ESTATE OF

George H. Wade, late of the City of London, in the County of Middlesex, telegraph operator, deceased, notice is hereby given pursuant to H. S. O. 1887, chapter 10, that all persons having any claims against the estate of the said George H. Wade, who died on the 29th day of June, A. D. 1890, are hereby required to send by post paid or to deliver on or before the 15th day of September next, to Messrs. Macmillan & Cameron, 205, D'Arny Street, London, E.C. 3, a statement of the nature and amount of their claims, and the nature of the security (if any) held by them. A notice is further given that after the said day of September the executor will proceed to distribute the assets of the said deceased, and persons entitled thereto, having regard only to the claims of those who shall have been given as above required, and the said executor will not be liable for the said assets or any part thereof so distributed to any person or persons whose claim notice shall not have been received at the time of such distribution. — MACMILLAN & CAMERON, Solicitors for the Executor. Dated at London this 13th day of August, 1890. H14v.

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