

THE ECONOMIC VALUE OF NATURAL GAS.

The many uses to which natural gas has been applied in the United States prove it to possess a high economic value; but obviously enough producers and consumers have gone upon the assumption that the supply was not only abundant and cheap, but inexhaustible also. As an article of fuel it possesses for many purposes great advantages over coal or wood, notably as regards cheapness, application and cleanliness. It has therefore been in great demand wherever supplies have been obtained, and in some instances pipe lines have been laid to convey it to distances of 70 and even 100 miles. It has also been very wastefully used in rolling mills, brick yards and other places, with the result that many wells which a few years ago yielded millions of cubic feet per day are already very much reduced in capacity, and in almost all of them there is a noticeable decrease in pressure. The following extracts will show how American authorities regard the economic aspect of natural gas: Says Mr. J. P. Lesley, State Geologist of Pennsylvania, "I take this opportunity to express my opinion in the strongest terms, that the amazing exhibition of oil and gas which has characterized the last twenty years, and will probably characterize the next ten or twenty years, is nevertheless not only geologically but historically a temporary and vanishing phenomenon—one which young men will live to see come to its natural end. And this opinion I do not entertain in any loose or unreasonable form; it is the result of both an active and a thoughtful acquaintance with the subject. From the time that Colonel Drake sunk the first well on the plains of Titusville, I have professionally participated in the history of the oil and gas developments, and believe myself to be familiar with whatever has been said and done in the premises; and there does not remain upon my mind a shadow of doubt respecting the practical extinction, in the comparatively near future, of that great commerce in oil of which the people of Pennsylvania have taken so little advantage when they might have accumulated from its sale in all quarters of the world a provision of moneyed wealth unheard of in the history of our race. The opportunity is indeed still offered; but it is steadily diminishing, and in a few years it will entirely pass away never to return again. For I am no geologist if it be true that the manufacture of oil in the laboratory of nature is still going on at the hundredth or the thousandth part of the rate of its exhaustion. And the science of geology may as well be abandoned as a guide if events prove that such a production of oil in Western Pennsylvania as our statistics exhibit, can continue for successive generations. It cannot be; there is a limited amount. Our children will merely and with difficulty drain the dregs.

"I hold the same opinion respecting gas, and for the same reasons; with the difference merely that the end will certainly come sooner, and be all the more hastened by the multiplying gas wells, and the fire-boxes and furnaces to which it is led."—*Ont. Bureau Mines Report.*

CALIFORNIA MIDWINTER INTERNATIONAL EXPOSITION.

The general landscape and outlay plan for the grounds and buildings has been finished, submitted, and accepted by the executive committee, and work will begin immediately. The types and style of architecture on which the designs for the buildings are being prepared will deviate entirely from a style now somewhat overdone, and the edifices intended to adorn the site of the exposition in Golden Gate Park are intended to be especially Oriental, or Moorish, Aztec, early Spanish Mission, etc. The ground area of the principal buildings is to be as follows: The Manufacturers' and Liberal Arts Building, not less than 450x200 feet; the Fine Arts Building, not less than 120x60 feet; the Agricultural and Horticultural Hall, not less than 300x125 feet; the Mechanical Arts Building, not less than 275x175 feet, and the Administration Building, not less than 60x40 feet. These buildings are to be constructed as nearly fireproof as possible, and in all of them the roof must be partially covered with skylights. The height of facades, which will be embellished with ornaments made of staff, will measure from ground to roof 40 feet, from top of foundation to eaves, about 50 feet.

Visitors to the Midwinter Fair will have ample facilities for reaching the grounds by street cars, the tracks of five important lines being extended to the main entrances, North and South. Foreign governments have been notified about the Exposition enterprise, also the official commissioners of foreign countries represented at the World's Columbian Exposition at Chicago, as well as the consuls of foreign governments at San Francisco. Commissioners for foreign countries will be appointed at an early date for the purpose of organizing their sections at the Midwinter Exposition, and these commissioners will again organize local committees in the interest of the exhibitors from their respective nations. The general rules and regulations and all other information for intending exhibitors are now ready and may be obtained by applying to the department of publicity and promotion, California Midwinter International Exposition, Mills Building, San Francisco, Cal., U.S.A.

PANICS AND MORAL HAZARD.

Mr. Jeffrey Beavan, of the London and Lancashire Insurance Co., sends the following opinion on the relation of panics to the moral hazard:

"As to the influence of moral hazard in times of commercial depression, which is logically correct and upon a sound basis of reasoning, I am of the opinion that a very large section of the community, and principally retail dealers and ordinary storekeepers generally throughout the country, are not gifted with that standard of sound reasoning for which they are credited, and that if the direct moral hazard be not intensified, carelessness and indifference—its twin sisters, and unquestionably of the moral hazard order—are so much the more rife in periods of financial stringency and commercial depression as to operate to the material disadvantage and prejudice of the companies.

"The average rate of premium, taken also with due regard to the average duration of the policies issued, was approximately the same in 1892 as in the previous year 1891, yet the incidence of loss was appreciably heavier; whilst for the current year, with a steady advance in rates, coupled with a limitation—in some sections, at all events—of the classes upon which term insurances are now granted, the record thus far as published from time to time in your valuable paper, indicates, as I believe, a larger incidence of loss to sums insured than in any previous similar period not more largely affected by conflagration fires. I believe that, as in the case of my own company, investigation will disclose that the companies generally have sustained in 1892 and 1893 a larger percentage of fires from 'unknown' causes, and in the aggregate an increased number also of garnisheed or attached claims, than in the average of, say, the previous five years.

"During periods of prosperity the physical hazard of manufacturing plants, and of various other classes, is doubtless enhanced by the pressure for production, etc. So also in times of depression I am of the opinion that indirectly, by carelessness and indifference, the moral hazard is even more largely influenced to the prejudice of the companies. In my judgment the question does not necessarily involve, and certainly not in any appreciable degree, the consideration of incendiary hazard."—*N. Y. Com. Bulletin.*

OYSTERS IN PRINCE EDWARD ISLAND.

The annual oyster production of Prince Edward Island has reached no inconsiderable dimensions, amounting as it did in 1892 to 32,937 barrels. The total production of all the provinces of the Dominion in the same period reached but 55,953 barrels. But these figures are not as large as those of the previous year, when the Island produced 41,030 barrels and the other provinces of the Dominion 20,000 barrels. The fishermen have accounted for the decline by the stormy weather in September, which materially reduced the usually good catch of the first part of the season. Other reasons, and more serious ones, however, may be found. The small shallow streams have suffered from over-fishing, and in many of them the industry is no longer remunerative. Mud digging machines have been largely used in the vicinity of living beds, and of necessity

have created great damage to the growing oysters.

The catch of the season now in progress will, from present indications, at least, not be in excess of that of last year. The *Charlottetown Guardian* says that "the fishermen have not averaged over one barrel each per fishing day this year, while in former years the average was between two and one-half and three barrels. Another very noticeable feature in connection with this scarcity is the almost absolute absence of small oysters, those that are caught all being large. This is not peculiar to this year, nor has it become noticeable all at once. There has been a general falling off from year to year, beginning a few years ago. These small oysters were formerly hauled away by the cartload and were used in experimental bedding in the harbor. This summer a peck basketful could not be gathered from all the different warehouses in a week. 'What is the cause of this state of affairs?' is the question which is being asked by the fishermen and dealers, and as yet it has not been satisfactorily answered. It would seem that in some way the spat or oyster spawn is being destroyed, but how is finally a matter of speculation."

This question should engage the most serious attention of the fisheries authorities. For to husband the natural resources of a country is a most distinctive feature of state policy. Unless surrounded by the most strict regulations, the competition of man will, in this respect, assuredly lead to depletion and disaster.

FARMING FOR A LIVING.

An important statement with respect to lands in the United States has recently been made by Mr. Morton, Secretary of Agriculture in Mr. Cleveland's cabinet at Washington. And some opinions are expressed by that official which are worthy of reprinting.

Croakers about the "hardness" of a farmer's life, and the difficulty of getting ahead, are reminded that only about 3 per cent. of all the merchants escape failure, whereas hardly 3 per cent. of the farmers fail. The statistics really show that agriculture is safer than banking, manufacturing or railroading, taking all things into account. There is no farmer of good sense and good health anywhere in the west, Mr. Morton declares, who cannot make a good living for himself and family, and that is as well as the majority of men are doing in any other pursuit. The man who owns a farm and sticks to it is certain to profit by it in the future.

There is practically, says the Secretary, no more land to be added to the area of cultivation, a statement that has great significance for Canada. "The supply of agricultural products has reached its limit in the United States, and must now remain stationary, while the demand will go on increasing every year. This implies a gradual improvement in prices, and a steady appreciation of the value of farming lands."

—Sir Henry Tyler, President of the Grand Trunk Railroad Co., says: "There is absolutely no foundation for the report that the Americans have any connection with our road. I wish to say most emphatically that Russell Sage exercises no control over it whatever. All reports connecting Mr. Sage's name with the management of our company were purely for speculative purposes."

—In taking 141,500 bushels of corn out of Chicago for Buffalo, says the *Marine Register*, the steamer "Selwyn Eddy" takes the record in corn cargoes from the "E. C. Pope." The "Eddy" now holds the record for both wheat and corn, her largest cargo of the former cereal aggregating 139,820 bushels, Detroit to Buffalo.

—The Western Grain Standard Board met in Winnipeg on the 22nd and 23rd of September. The board decided on a splendid sample of Manitoba best wheat as the standard of No. 1 hard. The whole crop is covered by four grades. The board decided on "extra hard," the sample weighing 62½ pounds to the bushel.

—At the C. P. R. salt wells, in Windsor, a tunnel is being dug from the river to the wells by which fresh water will be let into the wells. It is 143 feet long and eight feet below the water level, and 16 feet beneath the level of the ground.