

ingenuity of the country; that it is questionable whether any distinction should be made between large and small inventions, so long as they are original and useful; and lastly, that patent laws require, and are capable of being amended. It is very certain that patent monopoly has largely assisted in encouraging the development of an amazing amount of ingenuity, in producing entirely new sources of industry, and in extending and improving many old manufactures. Among industrial arts, husbandry is much indebted for machines which a quarter of a century back would have been thought impossible ever to realize. And among manufactures, how many entirely new ones have arisen which we may reasonably trace to the direct operation of patent monopoly in the security it affords the capitalist for the safe outlay of his money on what otherwise would never excite his attention, and most likely only to be treated as a wild, hopeless speculation. Among these patented inventions we trace the large manufactures of Macintosh cloth, vulcanized india rubber, gutta percha, new dyes, felted carpets, gas, electric telegraphs, electro-plating, stereo type printing, iron ship-building, wire rope, railway bars and locomotives, alpaca manufacture, photography, paraffine oil, with many more, all springing out of the security given for the investment of capital in the working of patent property. The vast increase of improvements in husbandry, brewing, dyeing, printing, electro-plating, metallurgy, and other extensive operations, has called into exercise such a demand for scientific and skilled labor, that laboratories form an essential feature of many large establishments to test accuracy of production, exactness in important details, to seize any accidental details that may offer, and to further scientific applications derived from independent sources. The entire circle of arts and manufactures is thus being constantly improved, and scientific research materially upheld and encouraged. Still, there may be individuals who seriously believe, and that without the slightest bias from self-interest or disappointed hopes or any flush of success, that renders them independent of adverse opinions to the means that achieved their own rising in fortune, that all the encouragement, improvement, and progress we have pointed out would have gone on all the same had patent laws never existed; and, in short, that all our distinguished patentees from Watt, in 1769-1785, to the present times, would have labored and produced, and laid out capital experimentally and practically just the same had these patent laws been abolished; indeed, that Mr. Boulton would have been as secure and as successful without, as he was with patent monopoly. Such reasoners always assume that inventors invent from the pure unalloyed pleasure they take in reforming all existing systems of manufacture. Poets and prose writers may invent with a view to fame and fortune, but mechanical inventors, we are to believe, are men far above the temptation of lucre. In conclusion, and in contrast to any such idle dreams, we have the facts before us that the patents preceding the 18th century were secret inventions, although an inventor had the power to communicate as much as he pleased to a manufacturer; but the consequence has been that few of these early inventions have come down to the knowledge of the present century; consequently, manufactures progressed slowly. When, later in the 18th century, patents came to be fully described, entered, and competition gradually sprang up, until, at the present period, the total number of patents actually obtained has risen nearly 80 per cent on the amount of those during the reign of George the Third. Therefore, patents are decidedly an evidence of commercial, and manufacturing, and scientific growth and prosperity. A patent is the inventor's sheet-anchor—it is his mainstay, which the more we improve and strengthen, the more shall we improve the prosperity of Great Britain and Ireland. A patent of invention is for a cheaper article, or cheaper process, or an entirely new or untried branch of industry. No patented invention makes any article of manufacture dearer than it is at present; nor it would not receive encouragement if it could be shown to be neither better nor cheaper than the ordinary manufactured goods. The million—the public at large—have no direct interest in patents as patents; the public interest is indirect, being concerned only in the products of the new manufacture. The interest of the public is in being able to purchase lace for 1s or 6d which had previously been sold as high as five guineas for equal quantities; and whoever attempts to argue against patent monopoly will have to show that science is independent of manufacturing interests for its encouragement, and that the progress of manufactures has been trammelled by patent monopoly; or that just the same or greater progress would have been made had the world never known such patentees as Watt, Bramah, Cort, Brunel, Mushet, Fourdrinier, Heathcote, Palmer, Perkins Roberts, Napier, Wheatstone, Bessemer, Muddock, and a host of other worthies, whose names and inventions have become almost as household words.—*London Athenaeum, Sept. 19*

ENGLISH GRAIN MARKETS.

THE following extract is from an able and carefully written article in the *National American*, and is well worthy of attention in Canada:—

It is, of course, very difficult to estimate with precision the quantity of breadstuffs Great Britain will require to import for the ensuing year, but we may perhaps approximate. Her importations of wheat for the six months of the recent year amounted to 17,686,508 cwt., which will be about thirty-five millions of hundred weights, or not quite sixty millions of bushels of wheat for her entire deficiency last year; her own crop of the present harvest supplies twenty millions of this deficiency, leaving the entire quantity she will need to import at less than forty millions of bushels. That she anticipates no difficulty in obtaining this supply at a moderate price is plain from the fact that the price is rapidly going down.

Wheat, which was sold in Mark Lane on the 8th of May last at 74s 4d per quarter, was offered on the 26th of July at 62s 8d.

If Great Britain should require (as we expect) forty millions of bushels of wheat, and we supplied forty per cent. of that amount, (which would be a larger proportion than we have done since the famine of 1846, and three-fold more than we shipped last year,) it would afford us a market for about 16,000,000 bushels of wheat. If, for the purpose of our argument, we suppose the average price to be 64s a quarter in London, (which by the way is enormously beyond the average of years and higher than the price ruling today) it would leave the price of American wheat at just \$2 a bushel in gold, or \$2.20 in currency. From this is to be deducted the cost of freights, commissions, storages, &c., incurred in the transit from the farmer to the consumer, which we suppose can not be estimated at an average less than \$1.25, leaving to the farmer as his net price, say \$1.65 to the bushel, and producing in the aggregate about \$26,000,000 for the entire export of surplus wheat.

We wish to be understood, when we name \$26,000,000 as the possible value of our wheat export for the current year, that in doing so we state a much larger amount than we have any idea it will reach. We doubt if it will be half as much, but we wish our estimate to be entirely within the truth.

SALE OF TIMBER BERTHS.

YESTERDAY, at the Crown Timber Office, in this city, a sale of timber berths, in the Upper Ottawa territory, was held by Mr. Hector McLean, auctioneer, on behalf of the Crown Lands Department of the Province of Quebec. The attendance was large and the competition spirited, the bonuses paid for some of the berths, as will be seen below, having reached a pretty high figure, and the average bonus per square mile realised about \$19. This bonus is in addition to the annual ground rent and according to conditions of sale is payable at the time the berth is adjudged to the purchaser. The limits sold (nearly all new) cover an area of about 2,000 square miles and realised the handsome sum of \$38,000 in the shape of bonus. If we were to judge by this sale it is pretty evident that the Quebec Government did not make such sad havoc with the timber business by its new regulations as some newspaper writers recently represented. Of the whole number of berths offered for competition only two or three were withdrawn. The following are the numbers, area and prices of the limits sold, with the names of their respective purchasers:—

On East Branch River Coulonge.			
Forfeited License No. 831, of 1864-5. Estimated area, 42 square miles, J. Roach.....			\$385.00
Forfeited License No. 832, of 1864-5. Estimated area, 39 square miles, J. Roach.....			542.00
Forfeited License No. 833, of 1864-5. Estimated area, 50 square miles, J. Roach.....			490.00

NEW TIMBER BERTHS.

On Head Waters of West Branch River Coulonge.			
Berth A, next above the highest existing license. Estimated area, 50 square miles, John Roach.....			\$800.00

On Head Waters River Coulonge.			
Berth	sq. miles.	J. Roach	\$ c.
B	50	J. Roach	3,030.00
C	50	Mr. Lauzon	2,250.00
D	50	Mr. Lauzon	2,020.00
E	50	J. Roach	810.00
F	50	do	830.00
G	50	do	910.00
H	41	do	930.00
I	50	do	1,050.00
J	50	do	1,600.00

On Lake Keepawa and Tributaries.			
Nos.	sq. miles.		
2	40	George Brighton	800.00
3	20	do	300.00
4	35	D. M. Moore	1,200.00
5	26	do	1,120.00
6	28	Charles Mohr	340.00
9	44	Dr. Grant	850.00
10	41	do	640.00
11	46	Charles Mohr	740.00
12	40	Dr. Grant	860.00
13	33	do	780.00
14	46	do	1,340.00
15	26	E. B. Eddy	800.00
16	27	Mr. Ward	1,000.00
17	29	do	640.00
18	35	do	520.00
19	38	B. McConnell	540.00
21	36	David Mohr	680.00
22	50	James Finley	780.00
23	50	do	770.00
24	50	do	1,050.00
25	18	do	440.00
26	46	Rod. Ryan	710.00
27	26	do	240.00
28	26	do	220.00
29	50	Mr. Thistle	420.00
30	50	Charles Mohr	530.00
31	50	do	520.00
32	50	do	810.00
33	50	do	420.00
34	50	Rod. Ryan	450.00
46	50	Edward Griffin	430.00
47	50	do	410.00

On East Side Lake Temiscamingue.			
39	42	John Roach	400.00
40	36	do	310.00
43	39	do	320.00
44	39	John Roach	360.00

The above are the estimated areas, more or less, but not guaranteed.—*Ottawa Times.*

BRANDT MINING COMPANY.—Yesterday Mr. Cyrus Nixon, of Paris, and Mr. John Johnson, Manager of this Company, called on us and exhibited specimens of quartz from their property, situated lot No. 19, in the 1st Concession of Madoc. The Company was organized last winter, and operations were commenced last spring. The stock is principally held in Paris, Grimsby, and St. George. They have already sunk three shafts; the specimens shown are from a depth of about sixteen feet. Measures have been taken to obtain a charter, which, it is expected, will at once be issued, and a crushing mill will be put up and ready for next summer's operations. Judging from the specimens, the prospects are good for the Company. The quartz exhibited is very rich in free gold—and there can be no question that if any quantity of quartz like the specimens shown was to be had, the problem as to the paying qualities of the Madoc mining territory is solved satisfactorily. Mr. Johnson has also with him a specimen of rock taken from the Richardson mine that quite equals the best specimens we have seen from Nova Scotia. It is matter of sincere congratulation that the enterprise that has so far induced these large expenditures, is likely to be rewarded by some substantial return.—*Hamilton Spectator.*

WOODEN RAILWAYS.—The *Montreal Gazette* says: A Quebec contemporary has reason to believe that the Local Government has ceded 1,200 acres of land to the Gosford Railway Company, at the rate of 30c per acre, and the company has therefore undertaken to lay down firewood in Quebec at \$2.50 to \$3 per cord. The enterprise naturally attracts a good deal of attention; and we would not be surprised if a company, on the same basis and with the same object, was got up in this city. The country to the northward contains an abundance of firewood, which could readily be brought to this market and sold low, but yet remunerative prices, if access could be had to it by means of a cheap wooden railway on the plan recently set forth in these columns.

RAILROAD EXTENSION.—The *American Railroad Journal* learns that arrangements are nearly completed for commencing the extension of the White Mountain Railroad from Littleton to Lancaster, and ultimately to the Grand Trunk line at Northumberland. The first section of the new road to be constructed will run from Littleton to the "Wing Road" in Bethlehem, a distance of 6½ miles.

COMMUNICATION BETWEEN RED RIVER AND LAKE SUPERIOR.

AMONG the blue books recently issued by the Parliamentary printers, is one containing a report upon the best line of communication to be opened up between the Red River and Lake Superior, by Mr. S. J. Dawson, C.E. It is based upon knowledge acquired during 1867-8 and 1868-9, while superintending the survey there, and embodies and condenses a great part of the information contained in his reports made to the Canadian Government at the time. It is accompanied by a map prepared in the Crown Lands Department of Ontario. It is of especial interest just now. He divides the route into four parts or sections, beginning at the eastern end. 1. Embraces the region to the east of the water shed or height of land, which he calls the Lake Superior section. 2. From the height of land to Fort Frances, on Rainy Lake, which he calls the lake section. 3. The navigable reach from Fort Frances to the North-west angle of the Lake of the Woods, which he names after that lake. 4. The land route thence to Fort Garry, which he names after that fort. In surveying section 1, he found that the Pigeon River route, besides starting in the United States, the canal route forms the boundary line for 150 miles. "The ascent from Lake Superior is very rapid and steep, and at the height of land, and far to the westward thereof, the route leads over a very high and broken region. The lakes at the summit of the water shed are 1,058 feet above the level of the lake, and even at that elevation are embosomed in rocky hills." The supply of water was inadequate to open navigation. This route was, therefore, abandoned. Next the Kaministiquia route to Dog Lake was surveyed—the old canoe route of the North-west and Hudson's Bay Companies. The supply of water was ample, and the elevation of the land 200 feet less than by the Pigeon River route. At the summit or turn of the water shed the country is practicable for roads. Dog Lake is about 24 miles from Lake Superior, and westward from it, its chief tributary, Dog River, can be made navigable nearly to the height of land—and will be so when a dam, now being constructed, is completed. The lake and river will give a navigable reach of 35 miles. The question to be determined was how to get from one lake to the other. The Kaministiquia River (through which the waters of Dog Lake are emptied into Superior) was surveyed. The former was proved to be 718 feet above the latter lake, and the intervening country rough and mountainous. The river makes a sweep of 60 miles, affording "an available, although difficult, route for canoes; but for large craft, it could only be made navigable at an outlay which no circumstances likely to arise would warrant." A land road to Dog Lake, 25 miles in length, was, therefore, decided upon, and about 6 miles of it have been already built. The lower reach of the Kaministiquia might have been used up to Pointe des Meurons, a distance of some 10 or 12 miles, but a bar of great extent at its mouth prevents vessels drawing more than 5½ feet of water from passing up, and when so far up the river you are no nearer Dog Lake than on the shore of Lake Superior. The line of road was, therefore, started from "The Depot," on Thunder Bay, about three miles eastward of the mouth of the Kaministiquia. "At this point," Mr. Dawson says, "there is, in my opinion, every facility for constructing wharves and forming a per-