

on railways. Excluding the element of carelessness, two thousand one hundred and sixty-five persons will die of cancer to one killed on a railroad. The statistics of railroads in all countries of Europe prove them to be attended with less danger than any other mode of travelling. More persons are killed in Paris in a single year by carriage accidents than in all France by railroads in ten years. The statistics of European railways bring out some very dull results—if such an epitaph is admissible in treating a subject that pertains to human life. They show that the absolute risk of a person's losing his life in a rail car is less than of his being struck by lightning, or being hanged; that a passenger shooting along by steam power at a rate of seventy-two miles per hour, is more secure from bodily injury than a pedestrian in a crowded city, or a gentleman driving his private carriage on a country road; and that the oil-begrimed and sooty pair who ride on the engine, on whom we look with pity, as predestined for destruction, have an average immunity from danger, and enjoy a better state of health than we, whose person may be more presentable, but whose pity is entirely gratuitous. A person debilitated by dyspepsia or pulmonary disease would question the sanity of his physician if recommended to take the position of fireman on a locomotive; yet statistics show that the employment tends to counteract these diseases, and to strengthen all the vital functions of the system. The satisfaction we feel in reviewing these results is qualified by the regret that no statistics of our American railroads, equally favorable, are accessible.

**ILLUSTRATIONS OF INTEREST.**—An annual payment or annuity of one dollar, invested at three per cent. for fifty years, amounts to \$112 80c., while at 5 per cent., during a like period, it reaches \$209.35, giving a difference on this small sum of nearly \$100. Suppose the case, then, of a policy-holder paying to a life insurance company \$50 per annum for an insurance on his life, and living fifty years after the date at which his insurance commenced, it would make a difference of very nearly \$5,000 to the office whether these premiums were invested at 5 instead of 3 per cent! being a sum probably twice as great as that insured under the policy.

The next is an illustration of the operation of interest on a larger scale than those already given. Suppose three life insurance companies to have each invested the sum of \$500,000, with its accumulating interest at 5, 4, and 3 per cent respectively, and the interest were receivable half-yearly: at the end of twenty years the following would be the amounts of the original principals with their respective accumulations:—

First Office, \$500,000 at 5 per cent.	\$1,342,532
Second " " " 4 " "	1,104,020
Third " " " 3 " "	907,010

showing a difference in favour of the office investing at 5 per cent over that investing at 3 per cent. of \$435,522, or an amount not far from the original sum invested.

It is clearly, then, of the very highest importance to the office that it does not calculate on a higher rate of interest than it may thereafter realize; while to the insured it is equally a matter of moment that the rate assumed be not materially lower than that likely to be realized on the investments of the company.

The foregoing examples will suffice to attract prominent attention to the fact that it is not upon a knowledge of the duration of life alone, however carefully that may have been ascertained, that the working of life insurance depends; for in every calculation the element of interest plays an important part.

The whole scheme of life insurance is based on the hypothesis that the contributions of the several members of a company shall result in a sufficiency of means to pay the representatives of each member, when he dies, the sum insured by his policy; and that this result may be attained depends mainly on two considerations. 1st. That the probable average duration of life shall have been correctly estimated, and especially not overrated; and 2nd. That the rate of interest assumed by the company in its calculations shall be actually realized by the safe investment of the contribution of the members.

The following is from an English publication: "Take the case of one shilling per day—a sum which many persons could invest without the slightest inconvenience—and see what it will produce. In thirty years it amounts to £1,212 10s. 2d., made up as follows:—principal accumulated, £547 10s.—interest, £665 0s. 2d. In fifty years the principal amounts to £912 10s. 0d., while the interest thereon has reached the sum of £2,908 2s. 0d., being more than three times greater than the principal, and giving the total accumulation at £3,820 12s. 0d."

The relative effects of simple and compound interest may be exhibited in the following manner. Money will double itself at varying rates of interest as follows:—

%	ct.	Simple Int. in 50 yrs.	Compound Int. in 35
2	"	33 1/2	23 1/2
3	"	50	35
4	"	75	50
5	"	110	75
6	"	165	110
7	"	240	165
8	"	345	240
9	"	480	345
10	"	645	480

But in order to demonstrate still further the great difference in effect between simple and compound interest, Mr. F. Bailey calculated, up to the year 1810, that if one penny had been put out at 5 per cent compound interest at the birth of Christ, it would have amounted to more money than could be expressed by three hundred and fifty-seven millions of globes each equal to the earth in magnitude, all of solid gold of standard quality, worth at the mint price £3 17s. 0 1/2d. per ounce. Whereas if the penny had been put out at the same rate of simple interest, the amount in the same time would have been only seven shillings and seven pence half-penny!

**DEPOSIT BY LIFE ASSURANCE COMPANIES.**—The Finance Minister proposes to require Life Assurance Companies to make a deposit with the Government by way of guarantee to policy holders. There are 29 Life Companies doing business here.

NAME	ASSETS	LIABILITIES	INCOME	EXPENSES
Niagara District	\$230,307	\$57,132	\$30,339	\$4,025
Canada West Farmers	55,422	31,071	41,961	38,922
Beaver	73,832	27,245	27,245	27,245
Home District	99,125	48,642	3,189	9,301
Guelph Township	1,959	11,619	5,189	489
County of Wellington	111,665	9,000	2,573	2,640
County of Brant	37,842	7,335	6,811	6,135
North Dumfries and S. Waterloo	33,053	500	394	360
District of Johnston	36,350	500	1,142	1,075
Township of Pushtech	4,718	40	187	85
Waterloo County	136,089	4,100	9,235	9,725
Ernosa Township	3,083	1,008	58	2
Nichol Township	6,247	3,217	332	462
Agricultural	211,714	66,355	48,808	42,901
Westminster	3,735	456	483	86
Victoria	29,000	11,439	4,839	7,721
County of Perth	5,289	1,006	724	584
Clinton	99,195	5,100	5,400	5,100
Gees District	105,031	49,824	40,825	40,782
Total	\$1,274,503	\$307,836	\$234,819	\$247,549

**Railway News.**

**TRAFFIC ON RAILWAYS AND CANALS.**—Mr. McFarlane has introduced a bill into the House whereby railways and canal companies may be obliged to afford all reasonable facilities for the forwarding and delivering of traffic upon and from other railways and canals where they intersect, as well as along their own line of roads or canals, and for the return of carriages and boats along these lines respectively, and for the prevention of any undue preference in favour of any particular description of traffic—so that

the local trade and local interests may not be longer conducted, as they at present are—subservient to the through trade—and the lines no longer monopolised by carrying through freight to the exclusion of way freight. To effect the object summary powers are given to the courts to interfere upon the complaint of any person, and the certificate from a board of trade of the contravention of the act by any such company.

**CARRIERS' LIABILITY.**—Mr. McFarlane's bill respecting railway traffic, introduced into the House of Commons of Canada, provides that the carrier shall be liable for injury or loss resulting from neglect in the receiving, forwarding, or delivering of horses, cattle or other animals or goods, notwithstanding any notice, condition or declaration made or given by the company contrary thereto, or in any wise limiting such liability. The company may make conditions such as shall be adjudged just and reasonable by the court or judge before whom any question relating shall be tried. The damages for loss of animals are limited to any horse, £50; neat cattle, per head, £15; sheep or pigs, £2, unless the sender, at the time of delivery, declares them to be of greater value, in which case the company may demand additional compensation.

**INTERCOLONIAL RAILWAY BILL.**—The Bill brought into the Commons by the Government declares the terminus of the railway to be Riviere du Loup in Canada, and Truro in Nova Scotia. It provides that the road is to be of 5 feet 6 inch gauge; that its construction and management until completed is to be under four commissioners appointed by the Governor; that the governor, or persons appointed by him, is to have power to inspect the contracts and proceedings of the commissioners; that no contract is to be made involving expenses of \$1000 or upwards, unless sanctioned by the Governor; that the Government may suspend the work at any time; that when any part of the railway is completed, the Government may make arrangements for working it until the ensuing session of parliament; that naval and military forces may pass over the road when required by the Commander of the forces, under terms to be agreed upon.

**FROM HALIFAX TO BRITISH COLUMBIA.**—Mr. Waddington, now on his way to England, to confer with capitalists there, proposes a through route from the Atlantic to the Pacific on British territory. His present scheme is as follows:—

	MILES
From Halifax to Collingwood, by rail..	1285
From Collingwood to Current River, by steamer.....	534
From Lake Superior to Dog Lake, by stage.....	28
Up Dog Lake and River, by steamer....	35
Portage to Savanne River, by stage....	5
Down the Savanne River to Little Falls, by steamer.....	65
Thence to Rainy Lake, by stage.....	63 1/2
Through the Lake across Lake of Woods to the North-west of Shoal Lake..	208
To Fort Garry, by stage.....	91 1/2
Down Red River to Saskatchewan.....	297
Portage.....	5
Thence up the Great Saskatchewan to 80 miles above Fort Edmonton....	952
Thence to Jasper House, at the foot of Rocky Mountains, by stage.....	140
Thence south up the Altrabasca to the foot of Yellow Head Pass.....	29
Through the Pass to the Fraser River..	90
Down the Fraser to Quesnelee Mouth..	230
Across the Chilcoatan Plain and through the Cascade Valley to the head of Bute Inlet, by stage.....	222
Total.....	4333

Of this there are of railways made or in course of construction 1,285 miles, and other portions of road requiring to be made 648 miles, while 2,400 miles can be accomplished by steam navigation.

**NEW RAILROAD IN QUEBEC.**—The municipal council of the township of Brome has passed a by-law authorizing the mayor to subscribe \$50,000, amount of 500 shares, in the proposed South Eastern Counties Junction Railway, on behalf of the municipality. The municipal