

# The Chronicle

## Insurance & Finance.

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### Law of Probability.

At a meeting of the Actuarial Society of America, President Ireland called attention to the law of probability as evidence in questions

of fact. The general nature, and the commonest form of the foundation work of the actuary, is the collecting of a mass of facts relating to the duration of human life, the classifying and graduating of the same, and the deducing therefrom of a law of probability. This law then becomes, for actuarial purposes, a statement of exact fact, and is used as such in the preparation of tables of premiums for insurance and annuities.

The process to which your attention is now invited is the reverse of this, and comes into play when a statement professing to be a statement of facts is upheld and accepted because some established rule of probability confirms it, or on the other hand is discredited and thrown out as false because a similar rule contradicts it. In its simplest form this is one of the commonest of mental processes; a boy tells you that he has gone through a school year without missing a single question that has been put to him by his teacher; you say to yourself, in effect, it is possible that this may have been so, but the balance of probabilities is so strong in the opposite direction that I decline to believe it. Or a man says that his horse, unknown to fame, invariably beats every rival that he finds upon the road; without investigating the precise facts, you balance the probabilities in the case, and, it is more than likely, reject the story.

Some twelve or fourteen years ago an accident insurance company in this country provided that the insurance covered by its short-time tickets should include a specified money benefit to be paid on the loss of an entire hand or foot. Within four years the company "was called upon to pay one-third of the principal sum insured under thirty-three insurance tickets for the loss of a left hand." "For the loss of right hands there were only four insurance tickets that had become claims during the same period of time," the money benefit being the same for one hand as for the other. Before this loss-of-limb benefit was thus provided, and after it was withdrawn (as it was after the experience just described),

accidents necessitating amputation of hand or foot of a holder of an insurance ticket were relatively rare; and under the general policies of the company for eight years the losses of a hand were, of the left hand less than 44 per cent. of the whole, and of the right hand over 56 per cent. Does not the law of probability constitute unanswerable evidence in this case of the intentional and fraudulent character of the so-called accidents to a considerable portion of the thirty-seven maimed ticket holders?

### Cost of Canals. Canada's

The Ministers of Railways and Canals, on 6th inst., stated that the expenditures on canals by the Dominion since Confederation had been as follows:—St Peter's \$718,890; Baie Verte, \$444,387; Lachine, \$11,009,670; Beauharnois, \$950,420; Cornwall, \$5,878,837; Williamsburg, \$7,862,247; Welland, \$2,977,587; Ste. Anne, \$1,253,965; Carillon and Grenville, \$5,107,924; Colbute, \$456,778; Rideau, \$1,981,823; St. Ours, \$227,868; Chambly, \$1,470,748; Murray, \$1,342,341; Trent, \$3,216,837; Tay \$490,347; Sault Ste. Marie, \$4,233,342; Soulanges, \$6,297,562; total, \$74,532,583.

In this sum \$57,968,739 is included, chargeable to capital, \$2,753,036 to income, and \$13,810,808 for staff and repairs. The total revenue was \$12,717,343.

A few days before this information was presented one of our daily contemporaries made the astounding statement that "Great Britain never had done anything to promote the trade of Canada!" Where did the money come from to build those canals, and where were funds derived to build the Grand Trunk Railway and whence came the capital to establish and maintain the business of a number of the leading commercial houses in Canada? If the journalistic writer who declared that Great Britain never helped the trade of Canada, knew what is commonly known to all well-informed persons, he would know that without the aid of British capital Canada would have remained as destitute as she was found when she first came under the British flag. It is deplorable that such ignorance exists of the services rendered to Canada by the mother country.