

THE HAMILTON SAENGERFEST.

The great Saengerfest in Hamilton last week is deserving of mention as a tribute to the enterprising management of the Canadian-American Saengerbund and the whole-souled hospitality of the citizens of Hamilton. As a musical event we are told it was very creditable, and the German love for music was instanced by the attendance of large bodies of singers from six or eight American cities, and as many Canadian places, to assist in rendering the works of the great composers. From Buffalo came the Deutscher Saengerbund and also the Orpheus Verein; from Rochester the Maennerchor Leidertafel; from Detroit the Saengerchor and the Germania Leiderkranz; while Cleveland, Erie and Jackson, Michigan, were represented by their respective musical societies. Of Canadian musical associations there were the Leiderkranz and the Maennerchor of Berlin; the Leidertafel and the Orpheus of Waterloo; the Maennerchor, of Montreal; the Germania Verein of Hamilton, the Leiderkranz of Toronto, and other societies, to the number of twenty in all. Such gatherings are to be encouraged, for they not only inculcate a love of music, a thing to be desired, but they bring American citizens over the border to see for themselves what sort of a country Canada is, and what kind of people Canadians really are. If such knowledge were general, American politicians and wire-pullers could do us very little harm.

FRUIT BRANDING.

A suggestion that packers, canners and shippers should be held responsible for the brand they put upon their fruit made ready for shipment, is made by the *Fruit World*, of Philadelphia. That journal urges the need of such interstate and international legislation as would make it an actionable offence to brand fruit anything else than what it is. There has been, it appears, a great deal of fruit coming from foreign countries of late so branded as to be misleading. "If, for instance, we have the cable authority for saying that a certain vessel, loaded with Messina lemons, is due in our port on such a day, our market calculates on such information. When the vessel arrives and the lemons properly branded Messinas come into our market and prove to be common Catania fruit, we recognize the imposition, and it should be regarded and treated as a fraud. And so with every action of false branding for the purpose of selling at a higher price." Fruit dealers have become too many and too well posted to suffer by such impositions, and the buyer and consumer should be protected from any disadvantages resulting from false brands.

MINING AND MACHINERY.

It is some weeks since an item appeared in the Vancouver *World* describing a project, not then fully matured, which was to add another to the industries of British Columbia. It was that of zinc mining. The journal quoted says: It has been known for some time past that there exists on the north side of Burrard Inlet a rich deposit of zinc. The location is some eight miles north of the water front and on the banks of Lynn Creek. Capital for working on an adequate scale has hitherto been lacking, but a syndicate was in July being organized with a view to developing the property.

The small size of the screw propeller, said a boiler maker to a representative of the New

York *Tribune*, is not due to the perception of any inventor of its greater effect as compared with a larger one, but purely to machinery. When I was first engaged in the machinery business, screws for steamers were made as large as possible, it being the theory that the greater the diameter the higher the speed. A vessel was placed on Lake Erie, with a screw so large that it was deemed best to cast each blade in two parts, and then weld them together. During a storm all the blades of the propeller broke at the welding, reducing the diameter by more than two-thirds. To the surprise of the captain, the vessel shot forward at a speed such as had never been attained before. Engineers then experimented with small propellers, and discovered that they were much more effective than large ones.

A goodly number of citizens of Sherbrooke assembled in that city last week to meet the Council of Arts and Manufactures for the Province of Quebec. Whether through the enlightened and eloquent address made by Mr. R. W. Heneker, or not, the Council made an appropriation towards industrial drawing classes \$150 larger than last year. Mr. Heneker rightly urged the grave necessity of the institution of classes for instruction in technical subjects; "a matter of the highest importance to the attainment of success in manufacturing industry."

We learn from the last *Sherbrooke Gazette* that owing to the closing down of the Magog mills the regular population of that place has fallen off by about 800. Most of the operators who have been thrown out of work have gone to Hochelaga and Coaticook to work.

A new departure in compound engines is announced from Mexico, having been put into practical and successful operation by F. W. Johnstone, superintendent of motive power of the Mexican Central Railway. Coal costs about \$11 per ton on that road, and Mr. Johnstone undertook to reduce fuel consumption by using a compound system of his own, in which the high-pressure cylinder is encircled by the low-pressure cylinder. The former is 14 inches in diameter, and the low-pressure cylinder has a diameter of 30½ inches, which is equal to a cylinder 24½ inches in diameter. The stroke is 24 inches, and the two rods of the low-pressure piston are coupled with the single high-pressure rod to one crosshead. In a competitive test of twelve trips with a single engine, the compound locomotive showed economy in fuel of about 25 per cent., which means a good deal on a road where the fuel account is the largest item of operating expenses, being 22 per cent. of the total.

The Cookshire Mill Company shipped four carloads of lumber to Melbourne, Australia, last week.

Experiments made twenty years ago on the non-conducting properties of boiler scale gave astonishing results. The effect of the scale accumulation is given as follows: 1-16-inch thick requires 15 per cent. more fuel; ½-inch 60 per cent. more fuel, and ¾-inch thick 150 per cent. more. To produce steam at 90 pounds pressure, in a clean boiler, only 355 degrees of heat are required; but with heavy scale this temperature must be increased 200 to 300 degrees. For ¾-inch of scale the heat must be 700 degrees, or almost a low red heat for the iron. Professor V. B. Lewis, F.C.S., F.I.C., after discussing the nature of boiler deposits in a recent lecture, recommended the following means of preventing these dangerous accumulations: 1. Filtration of condenser water through a coke column. 2. Free use of the scum cocks. 3. The use of water of

considerable density rather than of fresh water. 4. The use of pure mineral oil lubricants in the smallest possible quantity.—*Chicago Journal of Commerce*.

A summary has lately been published in Kirkaldy's work on "The Strength of Materials," to show the range in the strength of cement. The tests show the resistance to pulling stress of various samples of cement, all tested neat, and age 10 days. The highest stress per square inch is 643.4 lbs. for a cement weighing per bushel 115 lbs.—the lowest record is 87 lbs. per square inch. Between these extremes we have 178 tests of gradually increasing figures. The 20-days' samples vary from 534.8 lbs. to 203.2 lbs., the 30-days' samples from 675.2 lbs. to 378.6 lbs., and the 100-days' samples, of which there are only two, are 573.6 lbs. and 568 lbs. The briquette used had 5 sq. inches area.

The richest strike that has been made in the Leadville mining district for years has just been made in the Bon shaft, located within one block of Harrison avenue, Leadville's main thoroughfare. It was recently determined to sink this shaft, and diamond drills were brought into use and went down 812 feet and struck a thick vein of extremely fine grade silver ore, which assays from 2,000 to 3,000 ounces of silver to the ton.

INSURANCE NOTES.

(FIRE AND LIFE.)

An old and much respected citizen of Montreal passed away on Monday last when Mr. George Denholm, general agent of the Guardian Fire and Life Assurance Company, died suddenly at his office on St. Sacrament street. Mr. A. F. Patterson, of the Phoenix Fire Insurance Company, a cousin of the deceased, is believed to be the only relative Mr. Denholm had in this country. The deceased gentleman was about 78 years old.

A condensation of the result of the operations of fire insurance companies in France for the calendar year 1890 is given in a recent issue of *L'Argus*. The following is an extract, by which we learn that the average loss was 53.2 per cent.:

	Premiums. Fr.	Losses Per cent.
Generale.....	9,858,510	56.04
Phenix.....	7,959,111	51.72
Nationale.....	8,378,007	49.23
Union.....	10,482,408	59.73
Soleil.....	8,236,025	55.16
France.....	5,925,904	60.92
Urbaine.....	5,947,748	53.85
Providence.....	3,398,996	50.89
Nord.....	2,440,781	39.89
Aigle.....	4,097,419	55.21
Paternelle.....	4,397,111	41.45
Confiance.....	5,896,127	57.13
Abeille.....	4,134,503	46.64
Monde.....	2,577,792	54.19
Nation.....	798,011	38.58
Onest.....	358,551	55.29
Fonciere.....	3,611,897	43.72
Metropole.....	3,835,058	60.50
Rouennaise.....	1,478,876	51.88
Clementine.....	1,277,749	59.73
Eternelle.....	753,653	54.61
Assurances remois.....	110,676	7.94
Centrale.....	498,952	22.69
Commerciale.....	764,376	54.42
Union Gener. du Nord....	267,736	34.74
	97,485,977	53.20

We are informed of the appointment to the post of superintendent for Nova Scotia, of the Royal and Queen Insurance Companies, of Mr. Charles A. Evans, who has long been cashier with the agents of the Royal at Toronto. Mr. Evans is spoken of as a very desirable and competent man for the post. He is a brother, we believe, of Mr. W. B. Evans