benefit by them. Thus bringing the producer and the market close together. The progress of science has continually necessitated that one thing should be superceded by another; and yet this is by no means true in a strict sense. If you will allow me the metaphor in this edince, you will remember how in the history of the Jews the various tribes, the Ammonites, etc., were absolutely annihilated, according to the records of the Testament, in the first chapter; and yet you find them turning up all right in the second chapter. And so we have in many cases of a so-called superseded industry, a survival and revival that is remarkable. We call charcoal iron a deceased business. We say it is played out. But all the while there is more charcoal iron made and more wanted than ever. And while charcoal iron has the properties of charcoal iron, and while the universe retains the laws of the universe, naturally charcoal iron will remain in demand.

I cannot help feeling the great fitness of this scene and this moment, as we are gathered here from different countries and surrounded by the flags we love; and as we out through the windows upon these two great productive inductives are countries are required to the productive of the universe are required to the productive of the universe are are the productive of the universe of the universe of the universe and the windows upon these two great productive inductives of the universe of

countries and surrounded by the flags we love; and as we out through the windows upon these two great productive industries, seeing around us an evidence of the union of the Church and School—a guarantee, I trust, that learning will here be prosecuted in the fear and love of God, and theology promulgated with some respect for sound reason and education—I say, viewing and feeling this, I cannot help being conscious of how auspicious is the scene upon which the bright skies of to-day bend! I feel, and with a deep sense of gratitude—sometimes so deeply that I cannot put it into words—the privilege and the joy and the glory of having been born at this time and upon this continent! I feel, as I said to the young men of McGill University yesterday, that we have been crowned with the greatest gift ever given to man—the gift of being able to

continent! I feel, as I said to the young men of McGill University yesterday, that we have been crowned with the greatest gift ever given to man—the gift of being able to stand by and see an empire grow; to tend its infancy, to join hands with its youth, and to rejoice in the strength of its freedom! And that is your privilege and mine. There never will be, there never can be, anything more glorious than these pioneer beginnings of the greatness of the new age which you and I are privileged to look upon.

Mr. A. BLUE (Toronto)—This is not the first time I have have had the pleasure of visiting Radnor Forges. A few months ago it was my privilege to spend a few days here and see the work that was being carried on by the gentlemen who are our hosts to-day. I was then very greatly impressed with the good work they were doing for the community and for the province. I was desirous of knowing what they were doing here, so that we in Ontario might be assisted by trying to do likewise, where we know the value of the iron industry by the want of it. We have been going to school somewhat to our neighbors. We have been attending the meetings of this great institute which has met this year in Montreal, and have been getting inspiration and encouragement from them. I hope the time is not far distant when we will be able to follow in their footsteps, however much behind them we may be. They began the mining and manufacture of iron very early in the settlement of their country. They encouraged the industry then, and continue to encourage it; and it is to-day I think I may say the greatest next to agriculture, which that country possesses. Here in the Province of Quebec, as well as in the Province of Ontario, agriculture, which that country possesses. Here in the Province of Quebec, as well as in the Province of Ontario, we find our young men leaving us for want of employment at home. We find them fleeing from their own land. I feel very keenly the situation, and I think a great effort ought to be made to find new fields of employ-

land. I feel very keenly the situation, and I think a great effort ought to be made to find new fields of employment for our own people, by establishing in various parts of our country industries, such as that here, so that employment may be given; and I trust that the Dominion Government, and the government of each province, will do their utmost to cultivate such industries.

MR. JAS. CRATHERN (of Messrs. Crathern and Caverhill), Montreal, said:—Mr. Chairman, ladies and gentlemen: I observe on reference to the souvenir prepared by Mr. Drummond, that the late Hon. Senator Ferrier worked the property of the Forges over 40 years ago. At that time I was a clerk in his employ, and my duty was partly to superintend the sale of the goods manufactured, which were principally at that time double stoves, coolers:—which were often used for sugar purposes—bar iron, &c. The stoves were used entirely throughout the Province of Quebec, and I may say were very efficient articles. That was so long ago, however, that it would be out of place for me to ask any of the ladies present if they remember any of those stoves. If I remember correctly, the first discovery of the value of the ore was made by a company in Troy, actively engaged in the manufacture of railway car wheels. They discovered that the ore made the very best railway wheels, and I believe the gentlemen who are now working this industry are largely engaged in producing the same wheels. I am sure they are to be congratulated very much upon the progress they are making and apparently have made already; and I trust that with the continued aid of the National Policy they may be eminently successful.

The speeches and subsequent applause having terminated, we sought the train again; and after a pleasant run of fifteen miles reached Grandes Piles, situated upon the great and beautiful St. Maurice River.

Here a pleasurable surprise was in store. For no sooner had we alighted than we saw down the road, running parallel with the railway track, a dozen or more improvized open-air busses, to each of which was harnessed a pair of fine, strong, mettlesome horses, gaily caparisoned; and behind each team an expert French-Canadian driver.

Each sleigh was able to accommodate a score, having a framework of light lumber upon a pair of "bobs," with a seat and back on either side, as in pleasure vans.

In we piled, and away we sped down the road and

past the bee-hive kilns, that look like so many Esquimalt past the bee-nive kins, that took tike so many Esquimant castles. We go a little sedately at first; but after crossing the river and mounting some tough little hills on the further side, we enter the pine woods where the pure fragrance of the trees and the snow, and the exhilirating influence of the air and the moment make us open our mouths and draw the fresh atmosphere—the tonic of the hills-into our lungs.

hills—into our lungs.

Suddenly there is a shout! We know that something has happened; for our jehu with a strong arm pulls up his seventeen hands high horses to a standstill, in a moment, from a furious pace; and we behind him reel and totter and cling to each other as we are thrown off our balance. Looking ahead, we see that one of the loads has suffered a humiliating downfall in its proud career. The three thousand pounds and more of freight has been too much for the framework of the sleigh, for the latter has gone to pieces, and the occupants have been tumbled uncermoniously into the snow on either side, amid the laughter of their friends in the rear. However, no one is hurt. A portion of the unfortunates climb back upon their dismantled craft; and the ladies of the disaster are picked up by and distributed among the pro-

back upon their dismantled craft; and the ladies of the disaster are picked up by and distributed among the procession of sleighs following up in the rear.

So we speed on. We are well into the woods now. Up and down hill and round curves we go with reckless, careless abandon and spirit that is charming. Past the druids of this forest primeval, where not so very many years ago leaped the roe and rang the voice of the huntsman; where crept the wily brave, and whirred from the brown carpet and from beneath the broad branches of almost every pine and fir the prolific partridge.

Ah, what a life these Canadian habitants live, we say to ourselves as we feel the glow of animation and health

Ah, what a life these Canadian habitants live, we say to ourselves as we feel the glow of animation and health in our veins, and look upward at the "velvet void" where the tops of the swaying pines seem to write "liberty!" What a life they live! And they now it, too, these Canucks! Your Canuck knows when he comes up to the city and sees its pettiness, and insipid pleasures, and lassitude, and need of stimulant, that he heat of it out here in his woods, with his cityle has the best of it out here in his woods, with his simple living and his glorious life and health and liberty and strength! Well might he quote:—

Give me the life beneath an endless sky, Whose blue afar the darker of the lake

Meets in horizon kisses! Here may I

The echoes of primeval hollows wake;

And in a joyous and exultant cry
My effervescent spirits partly slake,

Nor fear man's pigmy interdict. Here I may be
Like that which is round me—boundless, bold and free!

Tis some small comfort in this fettered time. When man within Convention's prison broods, To feel I am not harnessed to the rhyme And jingle of her brainless platitudes aut that in freedom I may boldly climb With Nature to her most majestic moods : cale mountains, stand alone, or eager feel My pulses answer some swift moving keel!"

The bars of sunshine, that make the forest's carpet a beautiful pattern of white and gold, have grown longer. The air, as it will towards evening, even in a winter forest, has grown stiller. An ineffable peace broods over these hills. But we have been dreaming; for as we start from our reverie,—which, like a certain famous dream, has only lasted a moment—we hear the merry shouts of our companions, the quiet admonition of the driver to Pete or Rosalie; and we see that we are speeding back to the train—and home. And in a little while we are again crossing the St. Maurice River. The solenn woods are left behind us; and with a sigh of regret, we know that the drive is a thing, only to be re-lived again when, perhaps, we sit by a glowing grate on a December evening, retrospective, while Winter raps unheeded at the window pane, and dash over in memory the hills, and between the hemlock and the pines of the wildly magnificent country of Grandes Piles. country of Grandes Piles.

But we talk it all over as we discuss our supper with vigorous appetites and smoke our cigars on the run to Montreal. And as we propose the health and prosperity of our hosts and their industry, and of the United Convention of Mining Engineers, we agree with one voice that "the day has well been worth the living."

AN ONTARIO SESSION.

The Necessity of Secure Housing of the Geological Survey's Collection Endorsed—Other Resolutions of Importance Discussed

On the afternoon of Friday a meeting of the Ontario delegates to the Convention was held in the New Club Room, Windsor Hotel, at three o'clock. A number of outside delegates also joined in the proceedings, and one of their number, Captain Matthew Penhale, manager of the Glasgow and Montreal Asbestos Company, was called to the chair.

Prof. C. GORDON RICHARDSON, (Toronto)— The first resolution upon the official programme, No. 47, namely: "The necessity of enlarged and more secure housing of the magnificent collection of the Geological and Natural History Survey of Canada, at Ottawa,"

moved by Mr. B. T. A. Bell, was adopted at the meeting

of the Quebec Mining Association this morning.

I think that we should all agree unanimously upon the necessity and value of that resolution. At the present time the collection at Ottawa, while very amply and well time the collection at Ottawa, while very amply and well displayed, is nevertheless in an extremely insecure condition. That collection represents the combined efforts of the Survey since its inception. Many of the fossil collections, in fact the greater part of the collection, could not be replaced. It would be impossible to replace it. I understand that in the vaults or cellars of the house in which it is stored, are immense stacks of papers, volumes of works of the Survey, and other inflammable material, among which it would only require the careless dropping of a match or tobacco ashes to fire the whole building. And if that happened, "what hope to save the "—collection?

I therefore move, in the absence of Mr. Bell, that we

pass this motion.

The motion was carried.

PROF. C. GORDON RICHARDSON moved—"That Prof. C. GORDON RICHARDSON moved—"That it would be in the interests of mineral and metallurgical development were a compilation made of all information relating thereto from the time of Sir William Logan's summary of reports in 1863 up to the census of 1890. Also that it would be desirable were the reports of the Geological Survey divided into two volumes, one of which should treat on the Geological work of the Survey and the other on all matters relating to Mineral Occurrences, Mining and Metallurgy. Also that the prices of Geological Survey publications should be reduced to somewhat the same scale as that charged by the Geological Survey of the United States." of the United States.

of the United States."

He said: I do not think that in moving this resolution I need go into the reasons at any great length for supporting it. Some time ago, I think in 1887, the Canadian Institute, especially the Geological section of it, adopted a resolution of this character and forwarded it under the seal of the Institute to the Canadian Government. At that time the preparations for taking the national census were in progress. It was suggested that it would be well if a complete statistical volume relating to the mining industries and all information appertaining thereto, from the time of Sir William Logan's report of 1863, could be collected and published as a volume of the census of 1890.

For some reason or other, and on account of some antagonism, I believe, between the Statistical Branch and the Survey Branch, nothing material was done. That

antagonism, I believe, between the Statistical Branch and the Survey Branch, nothing material was done. That volume of 1863 is out of print.

It dealt generally with scientific geology, and in another part with economic geology and all occurrences of minerals known up to that time. Since then, although very much information has been collected by the Survey throughout the whole of Canada, that mass of information is scattered through the general volumes of the Survey publication, and is not in a handy form for reference. I have been asked: "What have you done in Canada in reference to mining? Has anything ever been done?" It is perfectly useless for me to refer my questioners to the reports of the Geological Survey, although there is an immense mass of information in regard to our mining industries contained therein.

When the resolution of the Canadian Institute was brought before the House of Commons by Mr. Cockburn,

When the resolution of the Canadian Institute was brought before the House of Commons by Mr. Cockburn, an answer was made to it by the Director of the Geological Survey, Dr. Selwyn, and he took exception to the statement that there was "A gap." He said there was no gap; and he then sent to the then Minister of Interior details of the work done by the officers of the Survey during that time, and also a list of the different papers upon the mining industry, which had appeared up to 1889 since 1863, starting with 1865. Now, sir, there is an immense mass of information scattered through the different publications. What this resolution asked for is that a publication of all that information which has been collected, not only under these heads, but which is also scattered through incidentally what we may term the more scientific papers relating solely to geology, be made scattered through incidentally what we may term the more scientific papers relating solely to geology, be made and issued as a volume, similar to the volume issued in 1863 up to 1890; from which time annual reports of statistics issued by the division of minerals and mines have been issued. Also, that the volumes of the Survey shall be issued in two separate parts, one dealing with field geology, and the other with the mining and metal-lurgical industries pure and simple, somewhat similar to Days' report.

Days' report.

Mr. GEO. A. SPOTSWOOD (Kingston)—I suggest

Mr. GEO. A. SPOTSWOOD (Kingston)—I suggest that they shall be bound in cloth.

Prof. RICHARDSON.—That would be very well; but at the present time, if you had, as I have, to write to the department about any information in regard to their volumes, and then be referred to a bookseller, you would think we will be very fortunate if we get what we desire. You are referred to a bookseller; and you are thus taxed not alone the cost of the work, but the bookseller's fees too. You have to pay something like \$2.00 or \$2.50, while from the U. S. government you would get their report for 50 cents.

report for 50 cents.

MR. A. LEOFRED (Quebec)—How is it we get reports

MR. A. LEOFRED (Quebec)—How is it we get reports from the Geological Survey about three years after the work has been performed?

(Several members—Hear, hear.)

MR. R. McCONNELL (Sudbury) seconded Prof.

Richardson's motion, which was carried.

MR. W. HAMILTON MERRITT (Toronto) moved that it would be in the best interests of the country were the present bonus on iron continued by the Dominion the present bonus on iron continued by the Dominion Government, and were the question of provincial bonuses considered favorably by the different Provincial Governments. Also were the question of the manufacturer of