

Interesting Facts Concerning Steel Industry in America

Steel and Iron Institute to Meet at New York This Week--Many Notables From Across the Sea Will be Present--The Last Gathering of a Similar Nature was Held Twenty Years Ago.

Within an hour's ride of New York at Tuxedo, in the narrow gorge of Ramapo, stands a crumbling stone ruin. It marks the beginning of the iron industry with a New York State, almost at its beginning within the nation. The crumbling masonry is the last remnant of the Sterling forge, in which the foundations of the Townsend fortune were laid.

In the Sterling furnaces American history was forged for it was there the anchors of the frigate Constitution were made by the first Townsend who called himself ironmaster. And it was Peter Townsend, too, who there forged the great chain which the patriots stretched across the Hudson in May, 1778, at West Point, to prevent the British men-of-war from passing further up the river. The honestly forged chain served its purpose faithfully. A bit of it with its great links, each more than two feet in length and each weighing a hundred pounds, is still shown on the parade ground at West Point. And in revolutionary days Mr. Townsend first began at Sterling forge, "in the German manner" the manufacture of that peculiarly hard metal called steel.

Indiana sands within five years, the ironmasters will be taken. Before they return to the Atlantic seaboard they will have a measurable respect for American steel—which, starting in 1860 with a modest output of 11,838 tons, last year reached the great figure of 23,958,021 tons.

CRUDE BEGINNINGS

The beginnings at Lynn were crude enough. Thomas Dexter and Robert Bridges, together with some lesser associates, set up their foundry on the western bank of the Saugus River in 1645 with the aid of John Winthrop, Jr., who brought a dozen expert ironworkers with him from Hammersmith, England. The fires on that forge by the bank of the Saugus were dead long before the Sterling Furnace came into the zenith of its hospitality, but some of its work—quaint little old wrought kettles—can still be found on the quiet shelves of ancient New England homes.

The iron industry in America was quite one thing and the steel industry quite another thing, which did not come into its own until Sir Henry Bessemer had made his wonderful process for making steel rapidly and cheaply practical. Bessemer steel was

terial from which to make guns there was little use in trying to make their heavy, elongated projectiles revolve. Bessemer agreed with him and that night as he drove in a cab from the post at Vincennes to Paris he decided to first improve the quality of gun material. He hurried to Cheltenham and busied himself with reverberatory furnaces.

After a time Sir Henry returned to Paris and he bore with him to the Emperor a model of a cannon, cast out of highly polished steel. Napoleon took the toy and placed it in a bureau drawer, remarking that some day it might become an interesting relic.

IRONMASTERS INTERESTED

It was only a little time after that before the ironmasters went trooping up to London. They had heard how Bessemer was making steel as one might make pig iron, and of the simplicity of his process, merely blowing atmospheric cold air up through the cauldons for some fifteen minutes. But the inventor was having his own difficulties. He was making his steel from Blaenavon pig, a high grade ore and it was going to be no easy matter to make it from all kinds of pig.

the use of chemicals, which forms the acid process, or by the use of acertain quality of clay brick lining, producing the same chemical effect and known as the basic process. The open hearth method of steel process has a double economy, both in the cost of its operation. Moreover, and here is a most important link, it will use a lower grade of iron than can be used in making steel under the Bessemer process.

So open hearth steel, particularly by the basic method, has crept apace upon the more famous Bessemer product. In 1908 7,836,729 tons of it were produced, against 6,116,755 by the Bessemer process, fifty-two per cent. of the United States output being open hearth. Last year the open hearth percentage increased to eighty five, the figures of production being 14,493,936 tons of open hearth to 9,330,703 tons of Bessemer.

The coming assemblage of ironmasters is not the first to be held in the United States. Just twenty years ago a notable assemblage of metallurgists is gathered in Chickering Hall, New York. It was a meeting of the Iron and Steel Institute, an international institution, often called the Iron and Steel Institute of Great Britain, that called the ironmasters, their chemists and their engineers together at that time. The work of that international organization has always been technical rather than commercial. It has never concerned itself with market prices or methods of regulating competition, but has given itself over to the problems of iron and steel manufacture. In that respect it differs from the new Iron and Steel Institute. The new institute, according to its founders, seeks not only to improve manufacturing relations, but to establish better trade relations between the individual manufacturers.

Sir James Kitson, the president, presided over the meeting of the Iron and Steel Institute in October, 1890. He came to this shore with a large delegation of iron experts from overseas. It was expected that Sir Henry Bessemer would be the chief figure of that delegation, but he was forced to decline because of his advancing years. Mr. Andrew Carnegie, then in the full flush of his attainments as a mighty ironmaster, was one of those who welcomed the foreigners. Another who addressed them was the late Abram S. Hewitt, who was, in turn, decorated with a medal in recognition of his distinguished services to the age of iron.

Before its members left New York the institute had dedicated the monument to Alexander Lyman Holley, which stands in Washington square. Mr. Holley was among the leaders of that well famed coterie of ironmasters in Troy, and was one of the men who furthest advanced the making of steel in the days when it was just coming into its own.

The 225 members of the institute left New York at the close of the Chickering Hall sessions for a ten thousand mile trip to the leading steel works and rolling mills of the land. Steel was certainly coming into its own in 1890. In that year it demanded for its furnaces 10,500,000 tons, or about one-third of the consumption of the world. The institute, travelling then as now in its own special train, dipped as far south as Birmingham, Ala. That was its own graceful tribute to the renaissance of the South. During the four years that immediately preceded that session of 1890 the South doubled its production of pig iron and that immense increase was immediately reflected in the production of steel. Birmingham has just been reported by the census authorities as having quadrupled her growth within the last decade, an almost incredible feat for a sizable city.

The institute met again in this city in 1904, repeating much of the programme of the session of fourteen years before. Again its members made by special train an inspection trip of the great American plants. This trip was shorter, the party dividing at its close, part returning to New York by way of Buffalo and others continuing on to the World's Fair in St. Louis.

FOR CLOSER RELATIONS.

The new American Iron and Steel Institute, which is this week coming into the fulness of its being, has already held some interesting meetings, at which valuable papers were offered and interesting discussions fostered. It is primarily a commercial organization, seeking to establish closer relations among the ironmasters of America, so that they may protect themselves in the markets of the world. It is a logical outcome of the tendency toward the concentration of the great business—a tendency which found its finest fruit in the successful organization of the billion dollar United States Steel Corporation. That corporation—or (Continued on page three.)

GUIDE FOR TRAVELLER

INTERCOLONIAL

DEPARTURES.

No. 303—Mixed for Loggieville, 5.00
No. 317—Suburban for Gibson and Marysville, 6.15.
No. 321—Suburban for Gibson and Marysville, 11.15.
No. 323—Suburban for Gibson and Marysville, 16.20.
No. 301—Express for Loggieville, Chatham, Campbellton, Quebec, Montreal, etc., 18.30.
No. 327—Suburban for Gibson and Marysville, 18.40.
No. 329—Suburban for Gibson and Marysville, 22.00.

ARRIVALS

No. 306—Suburban from Marysville 7.45.
No. 302—Express from Loggieville, Chatham Junction 11.25.
No. 308—Suburban from Marysville 13.30.
No. 304—Mixed from Loggieville and Chatham Junction, 16.00.
No. 310—Suburban from Marysville 19.15.
No. 316—Suburban from Marysville 21.55.

CANADIAN PACIFIC

DEPARTURES.

6:20 a. m.—Express for St. John, Portland, Boston, Woodstock, etc.
8:15 a. m.—Mixed for Woodstock and points North. Leaves St. Marys at 8:35.
9:45 a. m.—Express for St. John and points east.
4:30 p. m.—Mixed for Woodstock, La Gibson Branch. (Daily.)
5:45 p. m.—Express for Montreal, St. John, Woodstock, St. Stephen, etc.
9:00 p. m.—Express for St. John and points east.

ARRIVALS.

9:10 a. m.—Express from St. John and points east.
11:40 a. m.—Mixed from Woodstock via Gibson Branch. (Daily.)
11:50 a. m.—Express from Montreal, St. John, Woodstock, etc.
7:50 p. m.—Express from St. John and points east.
9:20 p. m.—Mixed from Woodstock, and points North.
10:40 p. m.—Express from Boston, Portland, Woodstock, St. Stephen, etc.

STAR LINE S. S. CO.

Steamer Victoria leaves for St. John every Monday, Wednesday and Friday at 7 o'clock a. m. Arrives on Tuesdays, Thursdays and Saturdays at 4:30 p. m.

ST. JOHN RIVER S. S. CO.

Steamer Elaine leaves for St. John every Tuesday, Thursday and Saturday at seven o'clock. Arrives every Monday, Wednesday and Friday at 4:30 p. m.

Steamer Hampstead leaves Fredericton every week day for Gagetown at three o'clock p. m. Arrives from Gagetown at 10:30 a. m.

Stage line for Meductic and point on western side of river leaves the post office Tuesdays, Thursdays and Saturdays at 7:30 a. m.



SEALED TENDERS addressed to the undersigned and endorsed, "Tender for Warehouses, St. John Harbour, N. B.," will be received at this office until 4:00 p. m., on Monday, October 24, 1910 for the construction of Warehouse No. 7 and the extension of Warehouse No. 6.

Plans, specification and form of contract can be seen and forms of tender obtained at this Department and at the office of J. K. Seaman, Esq., District Engineer, St. John, N. B., and Geoffrey Stead, Esq., District Engineer, Chatham, N. B.

Persons tendering are notified that tenders will not be considered unless made on the printed forms supplied, and signed with their actual signatures, stating their occupations and places of residence. In the case of firms, the actual signature, the nature of the occupation and place of residence of each member of the firm must be given.

Each tender must be accompanied by an accepted cheque on a chartered bank payable to the order of the Honourable the Minister of Public Works, equal to ten per cent. (10 p. c.) of the amount of the tender, which will be forfeited if the person tendering declines to enter into a contract when called upon to do so, or fail to complete the work contracted for. If the tender is not accepted the cheque will be returned.

The Department does not bind itself to accept the lowest or any tender. By order, R. C. DESROCHERS, Secretary, Department of Public Works, Ottawa, September 23, 1910. Newspapers will not be paid for this advertisement if they insert it without authority from the Department.

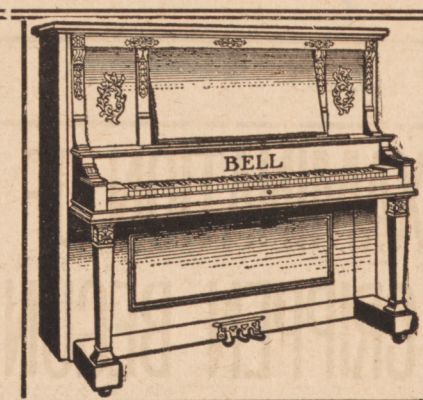
PUBLIC NOTICE

The draw of the Highway Bridge will be opened from 4:30 p. m. on Monday until 5 o'clock on Tuesday morning, to allow the dredge to work in the river channel. It will also be open during the same period in the following days until the work is completed. Pedestrians and drivers of teams will please govern themselves accordingly.

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SEALED TENDERS addressed to the undersigned and endorsed "Tender for Public Building, Hartland, N. B.," will be received at this office until 4:00 P. M. on Wednesday, October 19, 1910, for the erection of a Public Building at Hartland, N. B.

Plans, specifications and form of contract can be seen and forms of tender obtained at this Department, on application to Mr. D. H. Watebury, Supt. of Public Buildings, Public Works Department, St. John, N. B., and at the Post Office at Hartland, N. B.

Persons tendering are notified that tenders will not be considered unless made on the printed forms supplied, and signed with their actual signatures, stating their occupations and places of residence. In the case of firms, the actual signature, the nature of the occupation and place of residence of each member of the firm must be given.

Each tender must be accompanied by an accepted cheque on a chartered bank payable to the order of the Honourable the Minister of Public Works, equal to ten per cent. (10 p. c.) of the amount of the tender, which will be forfeited if the person tendering declines to enter into a contract when called upon to do so, or fail to complete the work contracted for. If the tender is not accepted the cheque will be returned.

The Department does not bind itself to accept the lowest or any tender. By order, R. C. DESROCHERS, Secretary, Department of Public Works, Ottawa, September 28th, 1910. Newspapers will not be paid for this advertisement if they insert it without authority from the Department.

CLASSIFIED ADVS. not exceeding one inch, one insertion, 25 cents; three insertions, 60 cents; one week \$1.00; one month \$3.00.

WANTED

WANTED.—Smart boys wanted to sell The Daily Mail. Liberal inducements to hustle.

WANTED

WANTED.—A maid for general housework. Apply to MRS. ARCH'D FRASER, Woodstock Road.

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FOR SALE

House, barn and lot in the Village of Stanley, next below Dr. Moore's residence; also one building lot in Stanley, and one house and two barns and lot in the Village of Gibson, known as the Ruel property, of four acres of land fronting the main river. This property is a good mill site as there is plenty of land and good shore for rafts of logs in the dry time in summer. Full information by calling on the owner on the premises, Gibson, B. McMennamin.

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Judge E. G. Gray, Andrew Carnegie, William L. King and William B. Dickson, men who have loomed large in the steel world.

There gathers in the city of New York at the end of this week the American Iron and Steel Institute its first formal assemblage. To the ranks of the great ironmasters of the United States who in this age of steel stand nationally pre-eminent, are to be added a coterie of furnace proprietors from over the seas whose great furnaces, forges and iron mills cover hundreds of acres, whose combined wealth and financial resources would make a sum approximating the national debt of some sizable countries.

These men are to be the guests of the American steel and iron masters at a splendid public dinner, and afterwards upon a fast special train, which in six busy days is to make a whirlwind circuit of the great steel making plants of the United States. They will not see the ruin on the Ramapo at Tuxedo, or the little ash strewn spot at Lynn, Mass., which marks the very beginnings of the iron industry in the United States, but they will see steel in the high zenith of her glory. They will first see the towers of Manhattan climbing aloft, the mighty bridges that span the East River at four different places, and then they will see where steel is born.

From Buffalo, where steel has just become a great civic industry to Pittsburgh, where steel has already built a great metropolitan city, through the busy Mahoning Valley, where the smoke of the hundreds and hundreds of furnaces make a great



WILLIAM B. DICKSON

pull by day and the fires by night are like unto the hearthstones of the great gods, and where steel is the greatest god of all, to Gary, the city of one hundred thousand busy souls, that has been built up waste invented in 1856 and changed the entire industrial history of the world. It made itself a factor for safety and economy in land and water transportation. Ships, bridges, giant buildings could be quickly fabricated in the Englishman's new tissue from the heart of iron. Steel—the dead thing with the muscle of life itself—became king. That throne it has not yet abdicated.

The English ironmaster carried on his experiments under the patronage of Napoleon III. He was trying to make gun projectiles revolve in a smooth bore gun by the use of gas reaction alone. Commandant Minie, of the French army, inventor of the famous rifle that bears his name, said that unless there was a better ma-

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