

# United States Steel Corporation.

71. Broadway, New York.

BUREAU OF SAFETY,  
SANITATION AND WELFARE.  
C. L. CLOSE, MANAGER.

May 20, 1925

Miss Ida M. Tarbell,  
120 East Nineteenth Street,  
New York City.

Dear Miss Tarbell:

I am handing you herewith the following:-

1. Letter from Mr. W. F. Palmer, President of the American Steel and Wire Company, of May 14, with enclosures mentioned therein, being biographical sketches of Messrs. Edenborn, Ellwood and Daniels.

2. Letter from Mr. E. J. Buffington, President of the Illinois Steel Company, of May 11.

3. Letter from Mr. George G. Crawford, President of the Tennessee Coal, Iron and Railroad Company, dated May 11.

4. Letter from Mr. E. W. Pargny, President of the American Sheet and Tin Plate Company, of May 11, with memoranda he refers to.

5. Letter from Mr. William b. Schiller, President of the National Tube Company, of May 13, together with memoranda referred to.

This is information you have asked for in connection with the story you are writing. If you have no further use for these papers after they have served your purpose I will be very glad to have them back.

Very truly yours,



Manager.

# Tennessee Coal, Iron & Railroad Company

GENERAL OFFICES: BROWN-MARX BUILDING.

GEORGE G. CRAWFORD  
PRESIDENT

*Birmingham, Ala.,* May 11, 1925.

Mr. C. L. Close, Manager,  
Bureau of Safety, Sanitation and Welfare,  
United States Steel Corporation,  
#71 Broadway - New York City, N.Y.

Dear Sir:

I have just found time to answer your letter of April 28th, the delay being due to reasons with which you are familiar.

I regret that I am probably going to be of very little assistance to Miss Tarbell in giving her the names of inventors of new processes or machines in the United States Steel Corporation.

Most of the processes used at present in the steel industry were invented many years ago, notably the Bessemer process, by Sir Henry Bessemer, although his discovery was antedated by Mr. Keller, who held the American patent and collected royalties on the process in America, but Sir Henry Bessemer gets the credit for it. There was, however, no Mushet in America to introduce the putting of ferromanganese in the molten steel, as Mushet did for Sir Henry Bessemer in England, to deoxidize the steel and make it a useful product. Next came the Siemens-Martin process, now generally known as the Open Hearth process, and invented by the men whose names it bears. Then came the Basic Bessemer process, which was invented by Thomas and Gilchrist. The Electric process, the Talbot process and the Duplex Process are merely modifications of the previous processes.

The By-Product Cokes Ovens, which have played such a great part in the steel business, were invented a great many years ago in Belgium by Carves and Coppee.

A great deal of the machinery used in the steel business are adaptations, designs for it being made largely by the great machine companies in more or less collaboration with various officials of the steel companies, and while these adaptations to the steel business have wrought a revolution in industry, and particularly in humanitarianism in industry, by relieving the human body of arduous manual labor and exposure to unpleasant conditions, and substituting therefor comfortable working places, where the manipulation of small levers causes the forces of nature to do the work which human hands and bodies used to do, yet the whole thing has come about so much through adaptation and co-ordination that the question of invention seems to have been relegated to a position of secondary importance in the steel industry.

I think it could be visualized by suggesting that inventions and machines to the industrial artist are similar to the paints and colors on the palette of the artist who is to paint a picture with pigments.

Yours truly,

*Geo G Crawford*  
President.