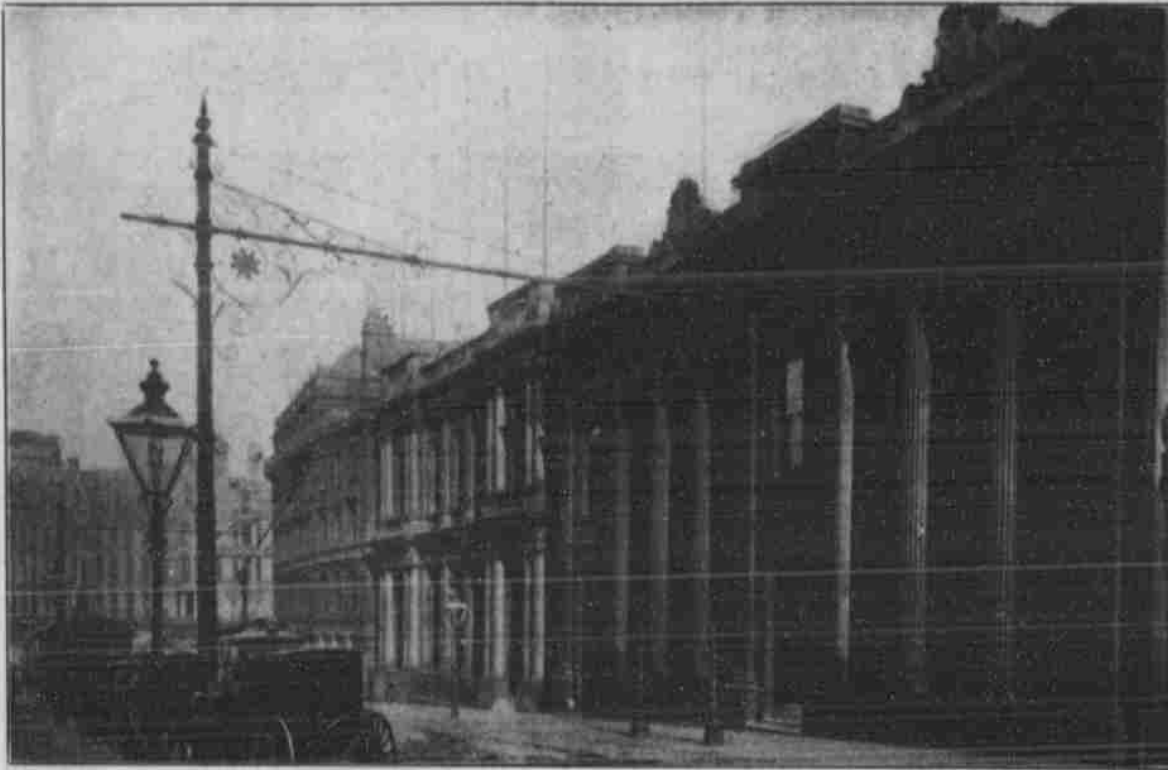


# American Invasion and the British Workshop



CUTLERS' HALL AT SHEFFIELD.



SHEFFIELD TOWN HALL.

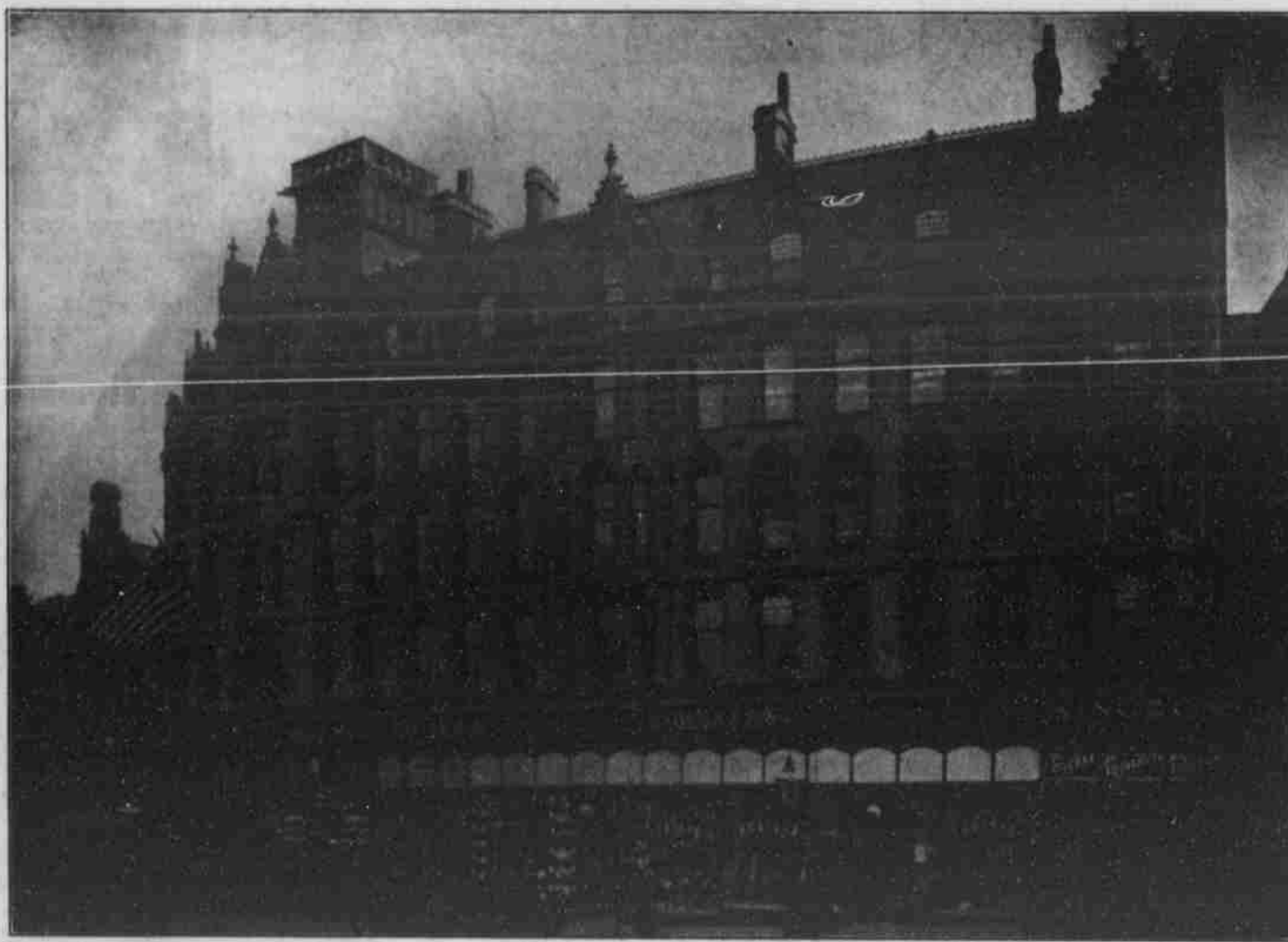
(Copyright, 1902, by Frank G. Carpenter.)  
**S**HEFFIELD, Eng., Aug. 14.—(Special Correspondence of The Bee.)—I find that the American invasion has made its way into this the very heart of industrial

England. Our big steel trust has frightened the factors of Sheffield, and their trade, not only in England, but all the world over, is being affected by it. The English railroads have begun importing American locomotives and American steel rails and the people here are wondering whether they will not soon be sending them knives and razors as well. The letting of the contracts for the enormous bridges in Africa and Burmah to American firms astounded them, and they are worried as to their foreign orders. Sheffield produces agricultural machinery, but our American tools are sold side by side with those of English make, and our biggest machine companies have their agents at every country fair to drum the trade. Much of the business is done at the fairs and our men sell direct to the farmers.

One of the greatest specialties of Sheffield is making machine tools, and the American competition is cutting deep into this branch of its business. In a recent article the editor of Fielden's Magazine, one of the best of England's industrial authorities, writes that there is hardly a workshop of any importance in the United Kingdom which is not using American tools and labor-saving devices. He says he knows of an establishment which recently bought \$100,000 worth of new machinery, two-thirds of which was American. Since the close of the war numerous articles have been published in the papers here as to how the Americans are fast getting the monopoly of the machinery sales for South Africa. It is reported that our trade in the British colonies is steadily increasing, and the complaint is made that the governments of the various British dependencies are giving their most important orders to the United States. **British Guard Trade Secrets.**

This condition makes it almost impossible for an American to have access to the English mills. The managers look upon every visitor as a spy. They think he is after their trade secrets and for this reason they will not show him their machinery. I have been refused admission to a number of factories and foundries on various pretexts, although my letters of introduction, some of them from our government departments, show that my mission is simply that of news gathering, and that I am interested in no manufacturing business whatsoever.

On the other hand the Britisher does not hesitate to borrow ideas and machines from others, and as a usual thing he borrows without asking. He is quick to take what he can get, not only from foreigners but from his own people. A notable instance of this occurred here at Sheffield as far back as a generation before the declaration of our independence. It was the stealing of the secret of making crucible or cast steel. The originator of this process came from near Sheffield. His name was Huntsman and he lived at a town called Handsworth. He established a factory at Attercliffe for the working of this process, and his descendants still make steel on the same spot. He carefully guarded his secret for a time, but at last one of his trade rivals stole it in the following underhand way: He disguised himself as a beggar, and one stormy night came to the doors of the factory seeking shelter and rest. He looked so rough that the men in charge did not think there could be any danger from one of his class and they compassionately admitted him. He was told he could lie down in the cinder heap. He only pretended to be asleep, however, and through his half-shut eyes took a mental photograph of the machinery and the operations. He watched so closely that he was able to reproduce the process, and he used it to rival the work of Huntsman. I understand that the descendants of this man still own one of the



BUILDING IN WHICH CHURCH HOWE OF NEBRASKA, UNITED STATES CONSUL, HAS HIS OFFICE AT SHEFFIELD.

largest iron and steel factories of England, and that their business was originally based on the work of that night. **Keep the English Out!**

If I were at the head of an American manufacturing establishment, I would be chary of showing my processes to English visitors, especially to those of the same business who are looking for points. Everywhere I go I learn of Englishmen who are being sent to the United States to study our workshops, machinery and methods. A year ago Mr. Arthur Keen of Guest, Keen & Co. and Mr. E. Windsor Richards, a well-known metallurgist, made a thorough study of the best American steel plants. The works of Guest, Keen & Co. have been long noted as among the best equipped in England, but what Mr. Keen saw led him to change much of his machinery to American patterns.

I know that a vast deal of American shoemaking machinery is now being introduced into the shoe shops of Leicester and other places. English shoes are being made after our pattern, and American leather is imported that they may be as like American shoes as possible.

In a recent copy of the London Mail I see that the Weardale Steel, Coal and Coke company (limited), another of the biggest firms in England, has decided to remodel its works on American lines at the cost of a million and a quarter dollars. They will adopt our latest details in blast furnace construction and steel manufacture as they have learned them from America. The Mail adds:

"By these and other means the company is confident that it will be able to hold its own against any competition, either at home or abroad."

Another plant which has been modernized is that of Bolchow, Vaughan & Co., but the modernizing in this case has been superintended by an American engineer, and the total cost has been more than two and one-half million dollars.

The English railroads are sending their engineers to America to study our railway methods, and I understand that a commission of English factory men will shortly

go from Liverpool to the United States to make a careful investigation of our plants along special lines.

In a recent letter to the London Times Mr. J. Lawrence of the house of commons writes a long statement as to the causes of England's loss of trade, in which he says it is largely owing to the use of antiquated machinery. He gives an instance in his own factory, saying that while on a visit to America he discovered that we had more economical machines than his own, and that when he returned he broke and threw upon the scrap heap tools which had originally cost \$185,000. His associates objected at the time, but they had since found that he was right, for owing to that change the company had paid dividends amounting to over \$3,000,000.

**British Engineers Graduate in America.**

Indeed, it is fast becoming quite the thing to send the graduates from the technical schools here to the United States for practical training. This is what the British Westinghouse company did with fifty young Englishmen whom they are now using in their Manchester works. They sent them to Pittsburg to learn Westinghouse methods, and the managers say that when so trained they become more efficient than the Simon Pure American.

In a speech at Wolverhampton Lord Rosbery recently mentioned how a certain factory had selected from the public schools a number of young men having some knowledge of electricity and engineering and, at its own expense, had sent them to America for a two years' apprenticeship in our workshops to qualify them to be superintendents or foremen of its shops in England.

In short, the English factors are now doing what the Japanese government has been doing for twenty years with hundreds of its promising young men; that is, sending them abroad to learn how to do business. The German manufacturers have long been doing the same thing. You find Germans everywhere studying trade and trade methods. Indeed it has come to such a pass here that many of the English shops

refuse to employ Germans even though they can get them for nothing.

As to sending men to the United States up to the present time, this has been done by the most enterprising firms. The average British manufacturer is still in his Rip Van Winkle sleep, although he is beginning to stretch himself and dream of waking up. The most of the class stick to their old machinery and old methods. They insist on doing business their own way and appear to think that they can prosper with the old machinery that their grandfathers used because their grandfathers prospered. This is one of the chief causes of the decline of British industry.

**Some Troubles of British Labor.**

In a previous letter I referred to the difficulty which Mr. Stewart, the American who built the Westinghouse works, had in getting his bricklayers to lay more than 450 bricks a day. The same difficulty exists as to all classes of English labor. The factory men complain that every workman tries to do as little instead of as much as possible in the time he works. He goes on the principle that there is only so much work to be done and that what is not done today will have to be done tomorrow, and also, that if he does all the work there will be none left for his fellows. The amount of work expected of each man in many cases, which is fixed by trade combinations, is the amount possible for the weakest and laziest. The minimum wage—that is, that all members of a certain trade shall receive a fixed amount per day without regard to the relative value of their labor—is upheld, and the rule of one man to a machine is fought for.

Strikes and lockouts are common, and hundreds of thousands of people are affected by them every year. I have before me the figures of such strikes for the year 1900. They numbered 648 and 188,000 people were involved in them. The total loss of work amounted to more than 3,000,000 days, or, in round numbers, cutting out the Sundays, to the work of one man for about 10,000 years. Reckoning the days at eight hours and the wages at only 6 pence,

or 12 cents, an hour, the loss in money amounted to more than \$3,000,000.

The principal causes of strikes were against the reduction of or for the advancement of wages, ninety-three of them arose from the employment of people outside the unions, or contrary to the rules of the unions, and only six were for a reduction of hours.

**Trades Unions Are Strong.**

All of these strikes were connected with the trades unions, which are very strong in Great Britain. There are thirty-two unions here which have altogether a membership of 893,000, and, in addition, 517 others, the members of which make a total of almost 1,400,000 trades unionists. The men contribute liberally to the unions, and the union funds on hand in 1900 amounted, it is estimated, to about \$18,000,000, or to the income of the members of the union for almost two years.

One thing that tends to the injury of the English manufacturing industries is what is known as the Week Ends and also the numerous holidays. The Week End is the Saturday half holiday which is common all over this country. No one works after 1 o'clock on that day, and a large proportion of the men, and of the women as well, celebrate the day by going on a drunk, which in many cases lasts until Monday. The holidays of the English workman amount to very nearly a month every year. I speak of those taken voluntarily as well as those allowed by the state. There is but little work done during Easter week, and in this region especially but little during the week following Ascension day. Then there is a holiday time about midsummer, and also at Christmas and New Year. The American would celebrate such times in a rational manner, but in a majority of cases the English laborer celebrates them by getting drunk.

**Drunkenness in England.**

Our people who have not visited the factory centers of England can have no idea of the terrible condition of the working classes as regards the use of intoxicating liquors. Women and girls patronize the saloons almost as much as the men, and you cannot go into a public house without finding from one to a dozen women drinking. There are saloons near all the factories, and at meal hours the hundreds of factory girls rush from them and sit down with the men and have their beer, gin or whisky with their meals. They drink at noon and at night, and many drink too much.

The average man, when he receives his wages, lays aside a certain amount for his drink over Sunday. If he makes \$10 a week he may give his wife \$5 for the household expenses and reserve the other \$5 for the public house, where he sits and guzzles. In many cases he prolongs his spree till Monday, and the factory then looks for him in vain. This fact makes English labor very unreliable. The companies dare not contract to finish their jobs in a fixed time, and as a result much of their business is going out of the country.

Again, when the American capitalist has a big job his workmen will turn in and work nights to help him. Here, I am told, the average man works rather against than for his employer, and the more skillful a man is the slower he works.

For fear what I have said about English drunkenness may be disputed I have looked up the national drink bill for one year and I find that it exceeds that of any other nation. It amounts to more than \$500,000,000 annually, or almost \$100 per year for each family of five. The amount spent for liquors in 1900 was more than the government revenue of that year and more than the rents of all the houses and farms of the country. Taking out the people who it is estimated abstain from the use of intoxicants it amounted to about \$35 per head, and two-thirds of the whole was drunk by the working classes. These fig-

(Continued on Seventh Page.)