

was in the shape of an "L." We went into the short end of the "L," where the furnaces were fed by natural gas, of course requiring no stokers. The end at which we entered had a rather low roof, and there was in sight a contrivance like a battering-ram in front of the furnaces; two workmen were sitting down eating their dinners near by; no one else was present. I thought: Mr. Schwab has made a mistake, he has asked us to see a mill that is not in operation. But we went through the mill, which was about 200 feet long, and suddenly we heard a rattle, and then saw a truck approaching loaded with a big ingot. No one touched the truck or the ingot. The load came to a platform, the crane overhead dropped a pair of tongs, and quickly put the ingot on the roller-table, and as it moved to the great rolls it was automatically kept in place. The adjusting screws of the rolls were turned by little electric motors, and not a man in that house did a bit of work. It was just as easy as what you are doing now—looking on! We went back to the furnaces. There was a fifteen-year-old boy seated in a place called the "pulpit." He was able, merely by the movement of levers, to open at will any of the furnace-doors and move the car along. And we saw this car come in front of a furnace and the charging machine approach, and take out of the open furnace a hot ingot which was dropped on the car and moved off to its work. There was this boy doing absolutely no hard work, and his mill was turning out 750 tons of steel-plate each day. My English friends said: "England has no chance in competition with such methods."

Now all this sort of thing came about in America because of our necessities. We hadn't men enough to do our work. There was a premium in favor of those who could invent machines to work and thus supply the deficiency.—From an address by *George Westinghouse*, reported in *The Railway and Engineering Review*.

The American Invasion a Boomerang.

WHILE, as good Americans, we are triumphing with an honest, loud noise over the victories of American industries abroad, has it ever really occurred to us that this very success carries with it its own danger? For, indeed, regarded from one aspect, our enterprise may merely be showing the nations of the earth how we do things. We are, in a way, selling the hostile our powder, and explaining to them our system of fortifications.

Almost withing the last two years, there has been established in a foreign port not six hundred miles from Cape Cod, a hostile camp, as aggressive as it is well armed; and of late it has been growing in strength by ratio arithmetical and geometrical. It has been sending its raiding fleets all over the American Atlantic. It has most audaciously invaded the great United States. It has even launched its pygmy but very vicious javelins at the rhinocerine hide of the Steel Trust itself; yes, it has paused on its march to heave large, bituminous chunks at the astonished coal-barons of Pennsylvania.

It is Mr. Henry M. Whitney, who has established, at Sydney, Cape Breton, the combined coal and steel company, which has made that "outstretched right hand of Canada" look very much like an outstretched bunch of knuckles. A few years ago he sat down with his experts to study Cape Breton steel conditions. He found that in Cape Breton there was coal at tide-water, with half a dozen fine ports on that "long dock of the Dominion," to choose among. There was ore of medium grade in almost every direction, and there was more of the highest grade only a day's sail across the channel on Belle Island. Limestone in plenty lay some fifteen miles to the north, also on tide-water—that priceless point of vantage hungered for by every great mill or factory-owner.