

## City Iron Works, 1870

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We [visited] that stoniest of all stony-hearted suburbs, Pymont, and the City Iron Works on a narrow plateau at the extreme western side of Pymont, facing part of Johnson's Bay, contiguous to Abattoir Bridge. So shut out are they ... that no one would dream of their existence save for vapour from smoke-shafts, and the clash and clang of heavy hammers.

We found many rude looking buildings, all exceeding smoke grimed, but much roomier than would appear to a casual observer. We found the main building floored with thick plates of iron, as wooden planks would be set fire and an earthen or paved floor would be in constant want of repair. The works are supplied with a very powerful steam-hammer, and contain machines for nipping, sawing and rolling iron, as if it were dough or matchwood.

The City Iron Works are not designed for smelting metal from the ore - they make old iron into new. We saw immense piles of ancient iron articles of every conceivable shape, for all imaginable purposes - from great broken masses of huge disused machinery down to nuts and bolts and even nails! Old buckets, iron plates, boilers, pots and saucepans are made into bundles and placed into ovens of terrible temperature, in which the heat is so great that though the masses are not melted, their parts are fused and then brought under the steam hammer. They are kneaded and worked and reproduced in rude flat slabs of six inches in width and an inch thick. We saw these pieces of cold iron subjected to the action of a quaint machine, of the shears family. One half of a pair of scissors rose and fell like the bill of a great bird, and as the plate was placed in its jaws it sliced it through as easily as we could slice a turnip. Two pieces, about two feet long, from the top and bottom of another bundle of scraps, were placed in the furnace until they glared with a perfectly white heat.

Then came the most exciting part. The furnace doors were thrown open, a man seized one glowing lump - a "bloom" - and dragged it over to another operator. A range of rolling-mills - moved by a powerful engine - occupy the centre of the building. These are adjusted to the style and size of the bar, rod or plate to be produced. A second workman seized the glowing iron with a pair of pincers and plunged it at one of the grooves of the rolling-mill; in an instant there was a report as of a small cannon, pieces of slag flew like bullets, and the iron had passed to the other side, slightly squared; it was gripped by another workman

and passed over the roller to the first operator, then by him through the second groove, and so on till it had made the passage fourteen times and had been elongated to about twenty feet. It was as plastic as a piece of Everton toffee, to which in its cooler stage, it bore no bad resemblance. It was finally dragged to a queer kind of circular saw, by which its irregular ends were bit off and it was the bar iron of commerce.

The men have their legs and thighs bound with many folds of sheepskin leather in addition to stout leather aprons. Some machinery is very powerful, the fly-wheel of the engine being sixteen feet in diameter. All kinds of wrought iron-bar, rod, plate and angle-iron - together with tramway rails and similar work, is produced, of the finest quality ... About forty men and boys are employed, and forty tons of iron can be turned out in a week.