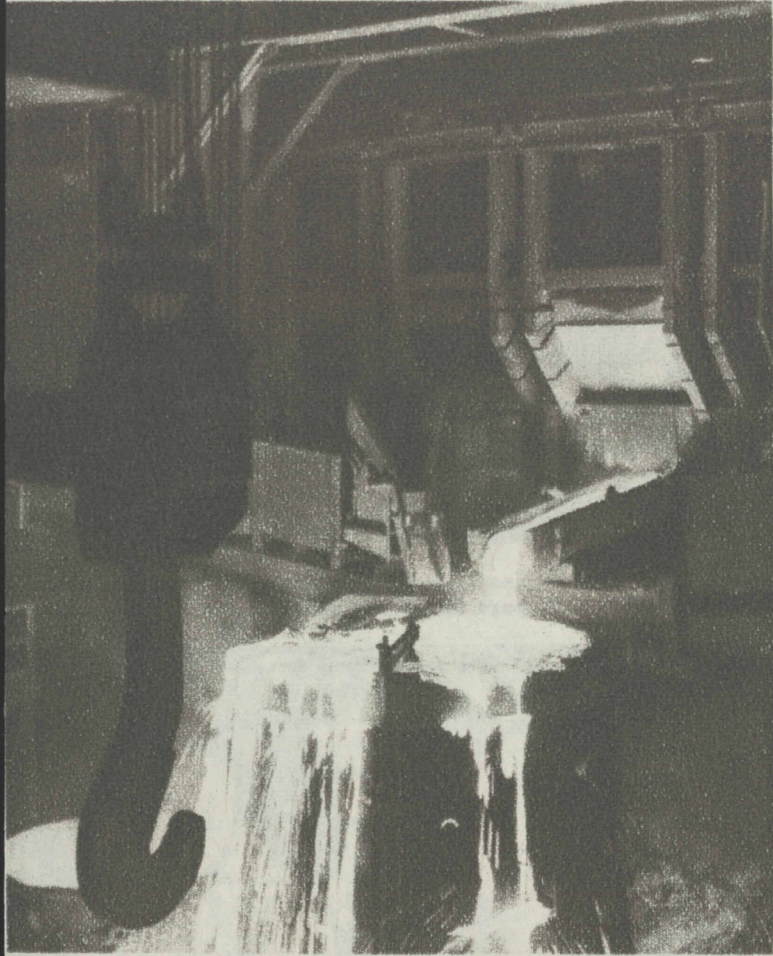
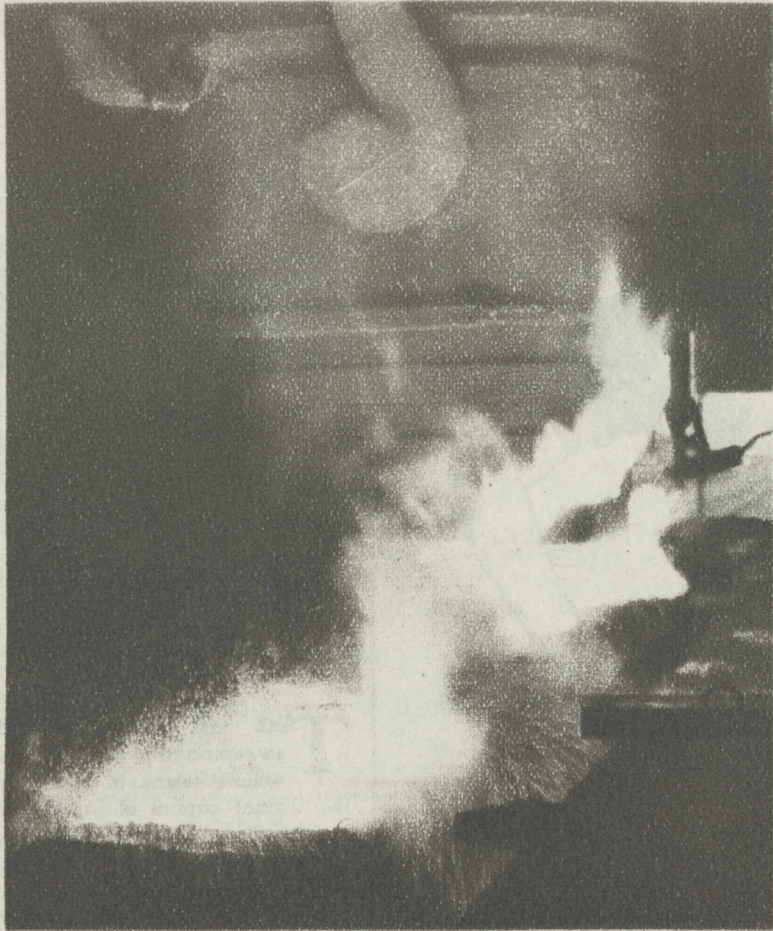


An Industrial Giant's Fiery Workshop

The Production of Steel, Step by Step



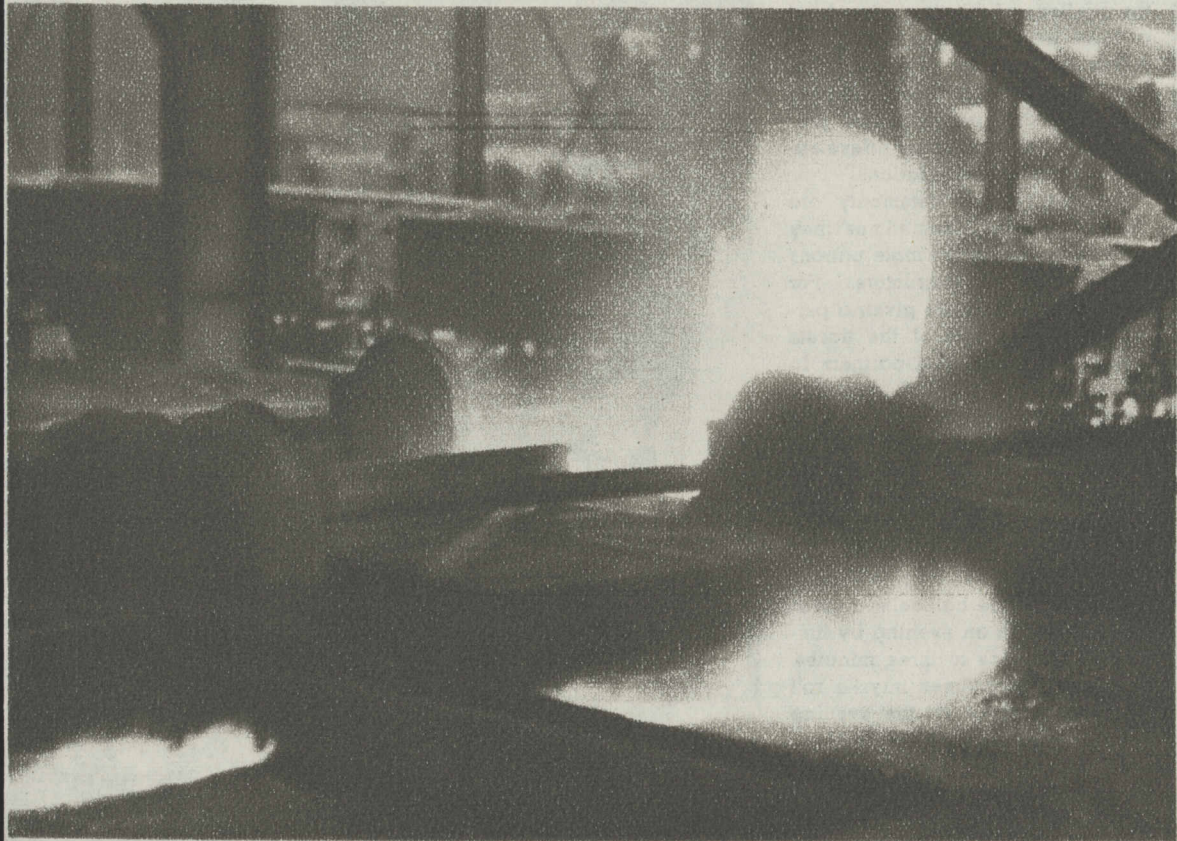
1 The birth of steel. Flowing from the open hearth furnace, to which it has been delivered in the form of liquid iron, the molten steel, at a temperature of about 3,000 degrees Fahrenheit, descends into a waiting ladle. Impurities in this molten metal rise to the top and are allowed to run over the ladle's rim into another receptacle called the slag ladle.



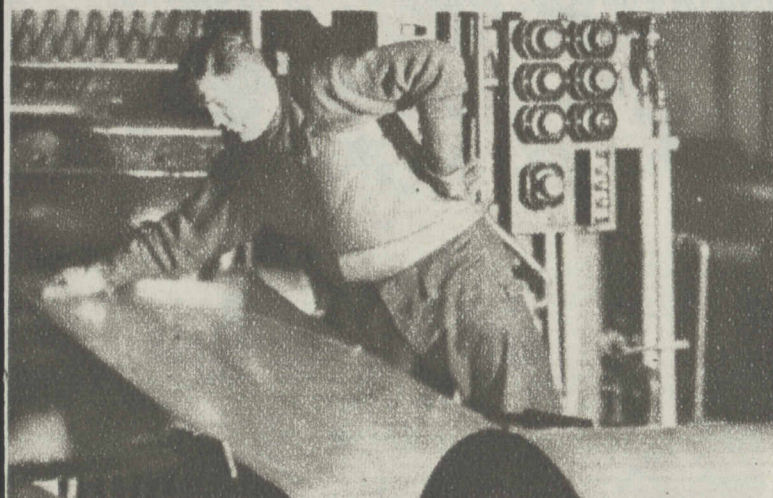
2 The ladle of molten steel from the open hearth furnace spills its fiery cargo into ingot molds, in which the metal is allowed to solidify and partially cool.



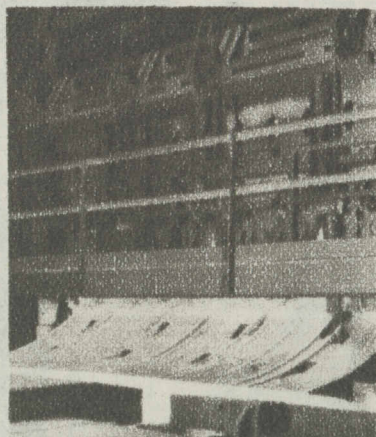
3 Right: A giant mechanical claw, the stripper, seizes the mold and lifts it at the same time forcing the glowing ingot down and out by means of a plunger.



7 A roughing stand of the 78-inch continuous mill takes the steel slab after it has left the blooming mill. The slab is further reduced as to dimensions, its width being swiftly narrowed by means of vertical, or edging, rolls.



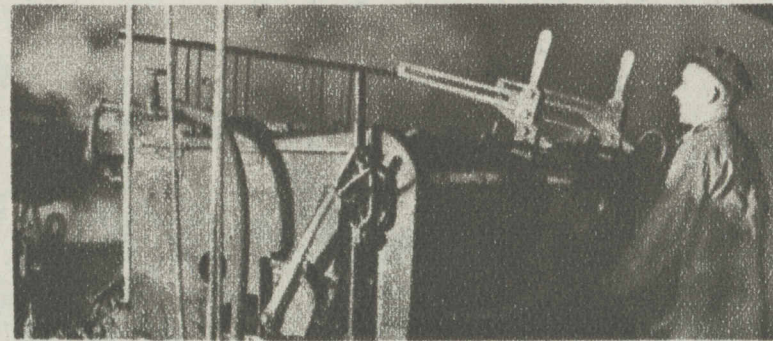
4 After being reheated in the soaking pit the ingot is removed, to be started to the blooming mill.



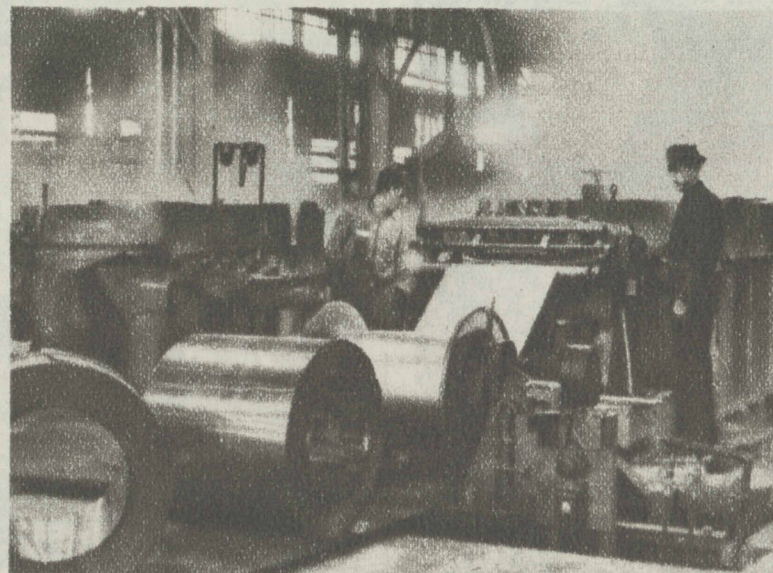
8 On the slab-heating furnace are skids upon which the reheated slabs slide down to be conveyed by means of rollers to the continuous strip mill.



5 In the so-called pulpit above the blooming mill sit the control men, who direct the ingot through the rolls of the blooming mill and control the draft or roll adjustment of the mill.



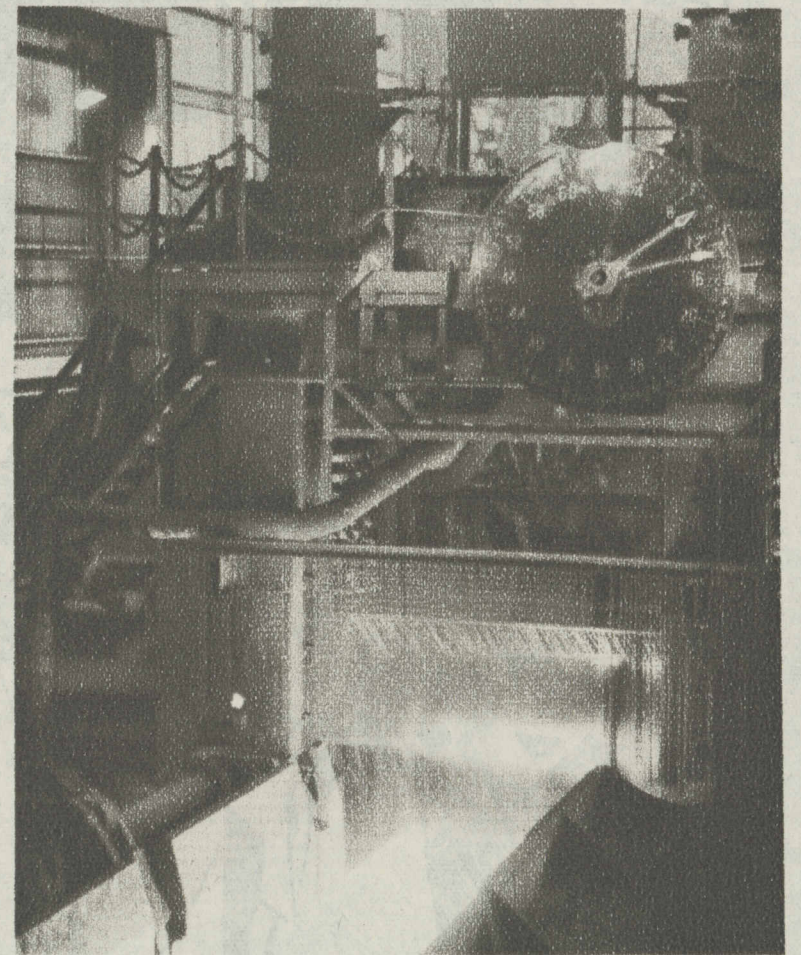
11 An operator places black plate into an automatic feeder preliminary to the process of tinning the metal. It is the thin coating of tin that keeps the steel from rusting.



9 Left: A coil of heavy-gauge pickled steel is fed into a cold reduction mill. It is the cold rolling of the metal that gives it the high finish and smooth surface required for automobile bodies, metal furniture and fixtures, and other objects of a similar nature.

10 Above: Under the scrutiny of trained workmen a roll of tin mill black plate, which is another name for a certain kind of light sheet steel, is fed into the machine called the scrubber. This is part of the process of making cold reduced tin plate.

(Tribune Studio photos by courtesy Indiana Harbor plant of Inland Steel company.)



6 The white-hot ingot enters the blooming mill between giant rollers that reduce it to a slab of semi-finished steel. Chains hanging before the rolls in the form of a curtain prevent scale from flying as the rolls engage the metal.

12 Below: Girls inspect and sort the sheets of cold reduced tin plate under brilliant mercury vapor lights. Any flaws in the product thus can be detected. The tin plate is used for making tin cans and for other similar purposes.

