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II.—SPECIAL METALLURGICAL OPERATIONS. Volatile combinations. Metallic distillation processes. Fluxes and fuming. Furnaces. The combustive junction. Products of combustion. Natural and artificial blasts. Blast machines. Catalan trompe. Chain blast. The Cagniardelle.

III.—RECENTLY-PATENTED REFINING PROCESSES. Plant's, Martien's, and Clay's processes. Bessemer's process. Bessemer's converting vessel. Application of the tuyeres. Pouring out the fluid metal. Preparing the vessel. Process of conversion explained. Bessemer's squeezer. Bessemer's hammer and gauge. Analyses of Bessemer's iron and of ordinary puddle-iron. Reductions on Bessemer's process.

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V.—MANUFACTURE OF STEEL. Cementation. Blistered steel. Sheer steel. Cast-steel. Qualities of steel.

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