profits will in future accrue to the Canadian Treasury, whilst the coinage of silver can be effected as required without the delay necessarily arising from dependence upon a distant Mint. With its own facilities the Dominion will now be in a position to maintain the statutory banking reserves in Canadian instead of British or foreign gold, and it may also be possible to replace the large amount of United States silver coinage circulating in Canada by silver coins of Canadian mintage.

Opening of the Mint for coinage.

The building of the Mint, and its equipment and official organization were completed by the end of the year; and the opening of the Mint for coinage took place on January 2, 1908. James Bonar, LL.D., Deputy Master of the Mint, and his official staff, appointed by the British authorities under the Dominion Act of 1901, entered upon their duties during the year 1907.

Plant used in coinage processes.

Included in the installation at the Mint are, (1) an electrical plant for power and light; (2) the plant for oil-fuel used in melting, annealing, etc.; (3) a die-making plant; (4) boiler house, tool-making and repairing shops; and (5) the assay department for the analysis of precious metals and for experimental research work. Of the numerous minting processes those connected with the actual coining are probably of greatest general interest. They consist of melting, rolling, adjusting, cutting, marking, annealing, blanching and cleaning, coining and testing. In melting silver the ingots of a purity of 999 or over per 1,000 parts are placed in crucibles with the necessary alloy and are melted by oil-fuel flames. Special devices prevent the loss of precious metal in the form of gas, and their importance may be estimated from the fact that in the United States Mint the value of metal recovered from the condensing chambers attached to thirteen furnaces after six months' working was not less than $12,000. The molten metal is poured into cast iron moulds, about 2 feet long, $\frac{1}{2}$ inch thick, and varying in width from $1\frac{1}{4}$ to $2\frac{1}{4}$ inches, according to the coins required.

Minting processes.

Rolling and annealing.

Rolling and annealing are the next processes. After cooling and rejection of those that are above or below the legal standard of fineness, the bars are first passed ten or twelve times through the breaking down mill, in which the weight of the top roll with its brasses and adjusting gear is about two tons. Next they are annealed in the fillet annealing furnace and then passed eight or ten times through the thinning mill and five or six times through the finishing mill, when they should be of correct thickness for coining.

Adjustment of gold bars.

For silver and bronze coins the rolling is sufficiently accurate; and the bars pass at once to the cutting machines, but for gold further adjustment is necessary. Gold is a very dense metal, having a specific gravity of about 19 as against 10 for silver and about nine for bronze. The legal variation from a standard weight is also in the case of gold very slight. The standard weight of a British sovereign is 123·274 grains, but the remedy