to redness and suddenly quenching it in water. The blanks are cleaned thoroughly and dried, and are then ready for the coining presses.

The embossing of the blank coin is accomplished by subjecting it to pressure when placed in a collar between dies. The collar is fixed on the plate, or table, of the press; the dies work up and down through the collar. The blanks are placed in the feed tube of the press, and feeding fingers, at each stroke of the press, take a blank from the bottom of the tube and place it upon the bottom die, which is just level with the surface of the table; the bottom die then sinks to the centre of the collar, the blank resting upon it, and the top die, following down, strikes the blow, causing the imprisoned metal to squeeze out and fill all space available. The blank thus takes the impressions of both dies and also any markings placed on the inside of the collar (the milling in the case of ordinary gold and silver coins). The top die then rises and the bottom one follows, forcing the struck piece out of the collar, the feeding fingers advance, pushing the struck piece down the delivery tube at the back of the press and placing another blank on the bottom die. The process is then repeated. A feature of this machine is a device that prevents the dies from striking each other in the event of the fingers failing to carry a piece forward from the feeding tube. A pair of dies will strike an average of 78,000 coins before they become unserviceable but, naturally, if they struck each other they would be rendered useless immediately. The speed of the presses can be controlled so that the number of blows struck per minute can be varied from thirty to one hundred. The battery of six presses can strike an average of 200,000 pieces per day.

The finished coins are forwarded to the examining room to be subjected to various tests. The edges of the coins are examined for flaws and then weighed. The automatic weighing machine, on which are weighed all gold coins and fifty-cent and twenty-five-cent pieces, separates the coins into three boxes, one for those of correct weight and the others for those coins that are too light or too heavy. The ten-cent pieces are weighed against a standard dollar weight, while the five-cent nickel pieces and the one-cent bronze pieces are weighed against an avoirdupois pound.

Coins of correct weight are examined on both sides for imperfections. Those coins not of correct weight, discoloured, 'dumb', or imperfect in any way are destroyed in the defacing machine and remelted. The good coins are delivered to the Mint Office and counted into bags by an automatic machine. The bags are tagged as to denomination, weight, and value of contents, sealed, and placed in the stronghold ready for use.

Precautions Observed in Working up Bullion.—The handling of precious metals in such large quantities at the Mint necessitates the enforcement of certain precautions. Each workman has a locker furnished with a special key and, on arrival in the morning, changes from his street clothes to his working clothes, fastens his locker and deposits the key with the foreman of the room. Each stronghold where the bullion is kept is fitted with a double combination and time-lock. When the bullion to be worked on is checked out into various rooms, it is weighed on balances carrying up to 3,500 troy ounces and turning to the one-hundredth part of an ounce. Each room is debited with the issue of raw material in the shape of bullion and credited with the amount of finished work turned in. At the close of the day, the floors are swept, the dust burned, and all small particles of bullion are recovered and weighed in. If the accounts then balance, the keys of the lockers are released to the men; if there is a loss, search is made for the missing metal or coin.