

The finished coins are forwarded to the examining department, where they are subjected to various tests before they are issued.

*Testing.*—In the case of gold coins and 50 cent and 25 cent pieces, each one is weighed separately on an automatic weighing machine. The 10 cent and 5 cent pieces are weighed in groups, in a hand scale, against a standard dollar weight; while the 1 cent pieces are weighed, in a hand scale, against an *avoirdupois* pound, which should contain exactly eighty of them.

The automatic weighing machines are very delicate instruments, the weighing being so accurate that the beam, when fully loaded, will turn with .01 of a grain. Each machine will weigh 20 coins per minute. The coins are fed into a hopper by the attendant. One coin is then pushed automatically on to a flat pan attached to one end of the beam; where it remains for 3 seconds; after which it is pushed off by the succeeding coin. During the time it is resting on the pan its weight determines which one of three shutters it shall drop into when it is pushed off. These shutters lead to three boxes; one for those coins that are too light, a second for those that are too heavy; while a third receives those that are of the correct weight. The latter are taken to the overlooking machine where they are spread on a travelling band, and carefully examined. Any that are found to be discoloured or otherwise imperfect are picked out. The band travels over rollers, and, on reaching one end of the machine, the blanks are turned over automatically, so that the other side of the coins may be examined.

All the gold coins, and the 50 cent and 25 cent pieces that have successively passed through the foregoing tests, are then rung, singly, on an iron block, to find if they have the correct ring, and are not "dumb."

Those coins which have been found to be light, or heavy, or "dumb," or discoloured, or in any way imperfect, are destroyed in the defacing machine, and re-melted. The defacing machine is of similar design to the marking machine, but whereas the groove in the disc of the latter is a plain one, that in the defacing machine is divided into a series of notches, so that the edges of the defective coins are notched all the way round.

The good coins are delivered to the office, where they are counted into bags by the telling machine. This machine automatically counts, and delivers into a bag, any number of coins, as required. When the desired number have been delivered, the machine stops, until the trigger is again pulled for the next bag. Any number of coins may be counted on this machine, from 100 to 2000; and any size of coin, from 50 cents to 5 cents.

In addition to the machinery mentioned above, there are several