GARDEN, CROSS, DUTCH, FACING, ETC BONDS

ENGLISH GARDEN WALL BOND   A

FLEMISH GARDEN WALL BOND   B

ENGLISH CROSS BOND   C

DUTCH BOND   D

THREE-QUARTER BATS

BRICKS-ON-EDGE

ELEVATION

PLAN OF COURSE "J"

PLAN OF COURSE "H"

SILVERLOCK'S BOND   E

ELEVATION

PLAN OF COURSE "L"

PLAN OF COURSE "K"

RAT-TRAP BOND   F

CAVITY

BRICKS-ON-EDGE

SKETCH SHOWING RAT-TRAP BOND

2" THICK FACING BRICKS

3" THICK COMMON BRICKS

SECTION FACING BOND   G

SCALE   FEET

FIGURE 18

and occasionally for walls of cheap one-storied cottages. They can be employed effectively if their external faces are covered with vertical tiling (see p. 111, Vol. III). The best known brick-on-edge bonds are (a) rat-trap bond and (b) Silverlock's bond.

(a) *Rat-trap Bond* (see F, Fig. 18).—All bricks are laid on edge, and, as shown, are arranged to give a face appearance of Flemish bond. Each alternate course L commences with a three-quarter bat, followed by a header, and each alternate course K commences with a header, succeeded by a stretcher. As indicated on the plans, there is a 3-in. cavity between each pair of stretchers, except at the jambs, which are solid (see also sketch). It is estimated that, compared with a 9-in. solid wall, a rat-trap bonded wall shows a saving of approximately 25 per cent. External walls of cottages built in this bond must be protected on their outer faces by rough-cast or vertical tiling, otherwise water may penetrate through the solid headers and mortar droppings.

Occasionally 9-in. rat-trap bonded walls are built solid, the cavity being filled by stretchers placed on edge.

(b) *Silverlock's Bond* (see E, Fig. 18).—This resembles English bond in that it consists of alternate courses of headers and stretchers, but, whereas the headers are laid on bed, the stretchers are placed on edge with a continuous cavity between. The jambs are solid, and a three-quarter bat at the beginning of each heading course gives the necessary bond. Whilst this is stronger than rat-trap bond, it is not so economical.

On the score of economy in materials and space, brick-on-edge stretching bond is frequently employed in the construction of 3-in. thick partition walls in lieu of $4\frac{1}{2}$-in. thick brick walls.

FACING BOND.—This is usually employed for solid walls exceeding 9-in. in thickness which are faced with thin bricks and backed by thicker and cheaper standard commons. The faced work is bonded to the backing in a series of blocks of a height which depends upon the difference in thickness between the two types of bricks. Thus, in the section through the 18-in. wall at G, Fig. 18, the height of four courses of 2-in. thick facings with their bed joints is shown to coincide with three courses of commons together with their joints, and the