File No. 10178 Continued. OPINION.

7880 alterations to the Baltimore City Jail, in so far as the same relate to what are known as cell fronts and cell doors:

The precise question at issue is whether or not, under said specifications, any kind of tool proof steel can be used except steel styled 5-ply steel.

I have given the matter most careful consideration, and feel satisfied that the specifications clearly call for 5-ply steel and for no other kind.

7881 On page 34 of the specifications, under the general heading "Specifications for Cell Fronts, Galleries, Stairways, etc." is found a sub-classification "Cell Fronts". It is then provided as follows:

"CELL FRONTS.

For general dimensions and heights and distances between parts, see the figured and scale drawings.

DESCRIPTION OF FIVE-PLY BARS.

All steel flat bars to consist of alternate layers of steel and iron, all thoroughly welded together. The steel layers to be hardened the entire length of the bar, thus rendering them saw and file proof and at the same time leaving them tough and strong. The round bars referred to herein to consist of a core of soft iron having a high tensile strength. This core is encircled by layers of hard steel which, in turn, is surrounded by a layer of iron, all of which are thoroughly welded together, and the steel layers hardened, saw, file and tool proof.

PLATE WORK.

All Plate Work to be of Bessemer or Open Hearth Steel.

Cell fronts to be constructed of interlocking tool proof grating. The vertical bars to be 7/8" diameter, round or hexagon, interlocking at about 12" on centers, spaced 4" on centers, passing through 2½ x ½ x ½" horizontals, spaced about 12" on centers at the top and bottom. The ends of the vertical bars are to be interlocked into double flat bars, thus completely locking every round bar at every point where it passes through a horizontal bar.

The top and bottom flat horizontal bars to be securely riveted with 7/8" countersunk rivets, spaced midway between the vertical bars.

The horizontal bars of the end sections to be connected to vertical frame bars by means of steel knees, riveted through each leg with two countersunk, oval head rivets. Where the grading is made in two or more sections the same are to be connected together, where they meet, with splice plates placed on the under side of horizontal bars, with two countersunk rivets in each end.

CELL DOORS.

Each cell to have a door about 2' wide and 6'--0" high, to be constructed of tool proof steel. The frame bars to be