

12th FOUNDATION BOLTS.—These bolts are to be 8 in number for the plate making part of the gearing; they are to be 6 feet 6½ inches long between head and nut, 1½ inch diameter, furnished with anchor-plate 10 inches square, 3 inches thick, with levelled corners. The keys forming head at one extremity are to be not less than 3½ inches broad, ½ inch thick, and inserted not less than 3½ inches from the extreme end.

The other extremity of these bolts is to be provided with substantial 6 sided nuts and wrought iron washers.

13th OIL CUPS AND FACE PLATES.—Each horizontal pedestal, and they are 4 in number, is to be provided with a brass cover to fit over the tallow cups, and thereon is to be secured an automatic oil cup also made of brass polished. Both ends of the counter shaft and the two ends of the crank shaft, and the two crank wheels are to be provided with polished brass heads according to working drawing.

SPECIFICATION OF PUMPS.

1st. FOUNDATION PLATES.—These plates are four in number, they are to be in cast iron, and to be made somewhat in the shape of an H. The base of said plate is to be 13½ inches broad, the top 10 inches, height of plate 12 inches, thickness of metal 1½ inch, except where the guides and the valve chests rest, also the 2 inner plates fasten to the foundation plate of gearing, in all these parts the thickness is to be 2 inches when finished; the fillets of these plates are to be made heavy, and the upright plate to be put on and inclined as shewn on the plan. Independent of each end there are also 9 ribs 1½ inch thick, that unite the bottom and top plate. Two of these plates are finished alike on both ends and do not connect with anything, they are the two exterior plates for pumps, one is right and one left. The finish at each end is to be like the section of the plate itself. Total length 28 feet 9½ inches. The two inner plates are also to be right and left; one end, that one where the valve chests are on, is to be furnished like the ends of the two exterior plates, and the two other ends are to be made flat and dressed true and fitted and secured each with 4 substantial bolts 2 inches diameter to the gearing plates.

Each of these 4 foundation plates is to have 6 holes 2½ inches diameter, that may be cast in, for the foundation bolts placed at the distances named on the general drawings; these holes have to pass through the whole depth of the plates, and to add to the strength of the plates, there are to be hollow tubes or passages cast as shewn