the Brooklyn side. The rope makes first two turns around a double grooved wheel 11 feet in diameter, called "driving wheel" and then passes around two smaller ones, called "guiding wheels," which keep the ropes in the desired distance from each other. On the New York side two similar wheels do the same service, which are fixed in a movable frame, so as to enable taking up slack in the rope. The driving wheel has a gearing on its circumference in which a pinion works of 15 inches diameter. On the pinion shaft is a mitre wheel in which are matched two others, both worked by a lever to throw them in or out of gear. The motion of the driving wheel and working rope can by these means be reversed. A 3 feet pulley on the shaft of these bevel wheels receives its motion by an 8 inch belt from another horizontal shaft which runs along the front face of the anchorage and which, by a 16 inch belt, is in connection with a steam engine located in the yard below. The 8 inch belt runs