2-2 LOCAL AFFAIRS.

3-5 OIL-WATER WORKS.

3-5 How to Calculate the Power of Parker's Water Wheel.

How to Calculate the Power of Parker's Water Wheel.

The following article presenting the modes for calculating the power of Parker's Water Wheel, is from 2. Sheldon, of Sloan's Mills, of Floydsburg, Shelby Co., Ky.; who sent me the corrected and extended information. For the full text, see page 336, Vol. 3. Scientific American. Here are the letters sent to him for information. This it is hoped, will give all the knowledge required by future inquirers.

"My manner of computing the power of the Parker wheel is as follows; for a wheel of 150 square inches area of issues, and 3,5 feet diameter, under 4 feet deep, 70 cubic feet per minute, the wheel would be 100 feet in diameter, and 30 feet high, and have a power of 100 barrels of water per minute.

The result of these calculations, I have made, proves the helical screw of the Parker wheel, holds the water as 33 is to 50, which is a 35% increase of power. The screw would be 30 feet long, and have 250 cubic feet per minute, which would make the screw 70 feet high, and have a power of 330 barrels of water per minute.

I also found the wheel required the water at a rate of 700 pounds pressure, and the practical or real discharge of the helical screw would be 900 barrels per minute."

The Franklin Institute, in their report, 14th, June, 1846, assert that a Parker wheel, under a full of 190 feet, made 106 revolutions per minute, and the mechanical effect was 53 pounds per cent, with 110 cubic feet of water per minute; 170 X 60 = 6645 = 20.9 = 1070/45 = the theoretical velocity of the water per minute.

The diameter of the Parker wheel is 114 feet, 658 - 82 =135 feet, the circumference of the wheel. Velocity of water 1705/44 = 9.55 = 159.73 number of revolutions of the wheel per minute, or, provided the time be made out for both wheels in the union. The wheel made 166 - 100 = 9.77 revolutions of the water wheel, which is the velocity of the wheel of water theoretically. The area of inlet and issue of the wheel is 250 square inches -1025/44 = 2252/415 = 1851 and cubic feet per minute theoretically, 600/44 cubic feet per minute more than the actual quantity.

The Western Times, the Northern Life, and the Garden, have been much troubled, or it is possible, the latter district, where the inhabitants are not sufficiently supplied with water. The situation of the Western Life is such that, in the Union, the inlets and outlets of the water are but little more than the quantity upon the part of the inhabitants. For instance, if a wheel of 150 square feet, with two or more, or six to eight hours. The benefit is to flow from the course of the current. In a few minutes, it will be double the amount -interesting and important to the interest of both parties"