

by June 1 the deep channel gravels, from the No. 1 east cross-cut up-stream to the upper end of the old Eleven of England lower workings, a distance of about 600 ft., were sufficiently drained to enable us to commence the work of taking out the gravel on a large scale.

"The channel gravels from No. 1 east cross-cut down-stream to the No. 1 west cross-cut, a distance of about 500 ft., are draining very slowly, and as yet are too wet to work economically.

"The channel, where it has been possible to mine the gravels, has been found excessively wide, averaging 250 ft. in width from the extremes of the pay



Large Water Wheel, 28 ft. diameter and 7½ ft. face, on Willow River.

lead, and this would account for the comparatively low values per cu. yd. thus far recovered in our work. Cross-cuts that have been run from the old Eleven of England lower workings show that the channel narrows rapidly as we proceed up-stream, and much better results may be looked for as soon as we are able to commence mining the gravels further up the channels.

"During the period from June 1 to October 13 a total of 4,043 cu. yd. of gravel was mined and washed and yielded 498 oz. of gold, the gravel having, therefore, a value of about \$2.22 per cu. yd.

"While it is unfortunate that we should have opened the channel at this wide point in its course with low gravel values, at the same time our development work, both up and down stream, shows most encouraging results, and the work now under way should in a few months time fully demonstrate the great value of this property.

"The company did not operate its Lowhee hydraulic mine during the past season, as it wished to concentrate its efforts on the Lightning Creek property.

"The Ah Quay hydraulic mine, near Stanley, owned by this company, was leased to and operated by other parties, who were most successful in their season's operations."

Lightning Creek Gold Gravels and Drainage Co.—This company, operating on lower Lightning Creek, near the "Wing-Dam," has been doing excellent work

during the season to further develop its property, and is now believed to have located the deep channel at this point with boring appliances, by which method, it is reported, flattering prospects have been obtained. In reference to these works the assistant superintendent, Mr. Frank Hibl, has to say:—

"On the advice of Mr. Samuel Keast, a very complete drilling equipment, with ample extra supply of material, was shipped in, to test the depth and location of the old channel. Drilling began in the spring of 1905, the Keystone Drill Co., the manufacturer of the drills, having furnished a skillful driller to operate the machine.

"It was the opinion of Supt. Keast that, in addition to locating the old channel and obtaining precise data from which to work it, these drill holes, when properly placed and cased, could be used for pumping stations, and such has been the result, the property being now equipped with two fast-speed 6-in. pumps, in addition to the regular Cornish equipment, and additional 6-in. pumps will be installed if found necessary to handle the water.

"This makes the installation economical, and just as effective as if an expensive shaft had been sunk in which to place the pumps. The results of the drill tests here at the 'Wing-Dam,' on Lightning Creek, have demonstrated the old channel for a certainty at a depth of 167 ft., while the values recovered are entirely satisfactory and indicate that the ground will continue its previous producing record.

"A large flume has been constructed to utilise the whole of the water of Lightning Creek for power purposes and a most complete equipment is being installed, including a steam-power hoist and other appliances to operate the property in the most thorough-



Shaft House, Willow River.

going manner. A careful survey is on the eve of being made, with a view to completing the bed-rock drain in due time. At present it is intended to use the present drain by connecting with the shaft and to run off the water by syphon effect, as soon as the mining is carried up-stream a certain distance.

"This, however, while being equivalent to a bed-rock drain tunnel, in fact, is only intended for tempo-