that the fire discovered on the 2nd instant by Mr. Dixon and party on the "back heading of Long Jig" cannot be taken as sufficient evidence that combustion originated and was confined to this particular part of the mine, as was at first supposed, for on the morning of the 5th instant, before the temporary stoppings were reopened (that Mr. Dixon sealed down at 5 p.m., 2nd instant), active fire was burning up through the grass at the extreme boundary at No. 2 incline workings on Chasm Creek side of the coalfield; these two points being 8 chains apart in a direct line across the pillored ground; the point referred to being the first where fresh air was brought to act on the burning mass.

My opinion is spontaneous combustion has been slowly and surely carrying out its destructive work under the mass of fallen rocks in the pillared ground, and making its way very gradually towards the fresh air on the outskirts of the falls where it was discovered. Mr. Dixon is very plain and truthful on that point when he states the fire is extensive. Time information was received, 1 p.m., 28th January, 1900.

Mr. R. Broome informed me at my residence that a message from the Postmaster at Seddonville stated the Cardiff Mine was on fire, and smoke was coming out at the tunnel-mouth, making ingress impossible. Arrangements with the railway officials were made to convey us by Government tricycle to Seddonville, subject to regulations. Arriving at the mine—8 p.m.—in company of Mr. A. Mitchel, underviewer, I found the tunnel bratticed off. We proceeded into the mine, but on reaching the first curve (7 chains in) the presence of acute after-gases made it impracticable to proceed further. The brattice stopping was again closed. Coming to the colliery office, Mr. Bayfield, the company's local agent, was at the telephone. I told him my opinion was that fire existed in some part of the mine, and a certificated officer would require to be engaged to superintend underground operations.

Monday morning, 29th January.—Orders were given to open tunnel at both ends. This done, the Wesport Coal Company's mining-manager at Granity Creek Colliery, Mr. Dixon, and Mr. Bayfield came on the scene. The tunnel being open for thirty minutes a fair intake current was running from the entrance, that enabled Mr. Dixon and myself to make headway in the drive about 16 chains; but, guided by the smell of the gases as we passed along, we considered that fire existed in a district of working behind us. Consequently we went direct up the main heading of North Block until we reached the pillared ground, making a diligent search over falls and all open workings. We were satisfied fire did not exist in that district. Returning to main roadway we found the air-current reversed, which made further inspection impracticable from that end of the tunnel. Crossing over the terrace to Chasm Creek end, we found conditions similar —air-current baffling backwards and forwards. We formed a party and made our way in about 8 chains, but nothing of importance was discovered. The air-current reversing drove us back. We then decided to seal off all openings to the mine until a permanent air-current was established. Underground operations being sealed down until ventilating-fan was removed from its position on Bridge district, and placed on Chasm Creek end of main tunnel, in old working where the fire existed. We left Seddonville by train at 7 p.m.

Monday, 5th February, 1900.—Before reopening the mine I travelled over to Chasm Creek side of the fire-affected section, in view of ascertaining to what extent the fire was showing on the surface and along the outcrops. Indications of active fire were seen at the extremity of No. 2 incline workings, also from the two drives above main drive and old furnace shaft. Returning to mine entrance, brattice was opened and fan started. Having obtained a reliable air-current, I led the party in the main roadway until we reached the junction of furnace-shaft drive. At this point a continuous column of smoke was discharging from the rise into the main roadway, making progress impossible either to the rise or along the level plane. From this point a fierce fire was discovered on main roadway, which proved the rise workings were one burning mass. To ascertain the intensity of the fire I waited at this point for fifteen minutes, but seeing there was no possible hope of saving the haulage-road I definitely decided to seal off the whole mine.

In the solid rock drive, 80 yards from tunnel-mouth, a suitable site was fixed for permanent stopping, and provision was made for a dam if considered advisable. Difficulty was not anticipated in the execution of this work, as a constant and sufficient air-current keep the men perfectly safe; but during the night an immense fall took place, and at the same time evidence of a dust explosion occurred, which completely changed our ventilating system, and made our work a most difficult and arduous task. Finished this work on Wednesday afternoon. Dimensions of wall: 9 ft. wide, 8 ft. high, 5 ft. 6 in. thick. Two walls of 3 in. black-birch planks, and 4 ft. 6 in. of clay puddle, planks notched into walls, four 10 in. black-birch props set on each side.

Thursday, 7th: The stopping on Chasm Creek end is built on similar lines, but only 3 ft. 6 in. of clay puddle.

Friday, 8th February: Filling in furnace shaft was the last work to complete sealing-off operations. To all hands concerned this part was dreaded, as continuous volumes of heated smoke forced their way through the heavy covering that temporarily sealed down the shaft. Preparatory to opening the shaft, large quantities of filling-in material were ready to pour in directly an opening was made. From outward appearances fate had destined to favour us, for the instant the covering was broken through a dense column of block smoke burst up in a direct line into the air, which caused no inconvenience to the workmen, and in less than two hours the enemy was conquered. Work was continued to 2 p.m., when the shaft was filled to within a few feet of the surface and securely covered. Depth of shaft, 72 ft.

Conclusion.

Cardiff Mine, as a coal producer, is commercially valueless under present existing conditions. The tramway which connects the leading station on the Government railway-siding with the Bridge or Chasm Creek district of workings passes through the old mine, or fire-affected section of the