

turned aside into the engine room, where a big, double stationary engine is at work, ever hauling up the trains of coal cars from the lower levels. It stood still when we entered, but soon some empty cars were to be sent down and the big drum round which a stout wire rope was coiled began revolving at a fearful velocity. Yet we scarcely heard a sound outside, so closely were we shut in here by the walls of coal; so completely were other sounds than that of the engine and the whizzing drum shut out. Then we went out, and, standing at the opening of another adit or lead, watched one train pass up filled, another down empty, at a speed probably of ten or possibly fifteen miles, but which looked like fifty in this place. It was the duty of one lad—a smart, active little fellow he was—to catch hold of the end of the advancing train as it reached the summit, run with a few steps, and detach the hauling rope the moment it began to slack. It required great quickness and dexterity, and the lad had both. Off this regularly descending main road were branches. Commencing at the top of the vein, which itself had a dip of several degrees, it dips down gradually to the bottom. It extends, we are told, about a mile. The branches strike into and pierce the vein or seam in different places, and are worked upwards to the roof of it. The one worked here is an exceedingly valuable one of twelve feet in thickness. Up each branch goes a branch tram-way. In each of them works a gang of four men (three digging and one loading), with a boy at the entrance with a horse to haul out the loaded cars to the main road and replace them with the empty. The poor miners, while at work, are naked to the waist—their caps, with the light stuck in them, their trowsers and shoes are all their clothing. Working upward to the slate roof of the seam by regular, broad steps or benches, they dig away at the top a small clear space with picks and crowbars. Then at about three feet below this they undermine a mass, or drill it with their bar, and blast it off with powder. As we approached several of these places we heard the dull rumbling sound of the explosion, and going in found them almost suffocatingly full of powder smoke. One party we found in high glee. A huge mass had been loosened, and their next day's wages were likely to be large. The man whose blast had exploded shook his head triumphantly—"Ah! I never waste my powder. It costs too much." Returning, we saw the stable where the horses are kept. Most of them seemed in very good condition. Once let down they are never taken up again till they die, or become unfitted for their work. The men are sometimes compelled to leave their work by sick headaches. One lad thus afflicted we saw at the head of the shaft, another we met below going up. This suggested unpleasant ideas of "fire damp,"—the more unpleasant as the miners all used open lights—not a Davy or other protected light visible anywhere. The engineer, when questioned, admitted there had been one explosion a few years ago, which killed his own brother, then in charge of the mine, and a couple of little lads. He had ventured into a part of the mine which had been unworked for a long time with an open light—the consequence was the explosion and these deaths. But now, by means of the huge pumping apparatus above, a constant current of air is kept up over the mine, and the water pumped out and exposed to the air above, is dashed down again in spray, and runs swiftly along the mine again to the pumping reservoir. Besides this there is very little