

THE GOYT VALLEY WATER SCHEME

Our Special Correspondent

The Manchester Guardian (1901-1959); Feb 26, 1932;

(From our Special Correspondent.)

WHALEY BRIDGE, THURSDAY.

Work on the Fernilee reservoir of Stockport Corporation in the Goyt Valley was started about two months ago, and to-day was formally opened by Alderman George Padmore, chairman of the Waterworks Committee, who fired a shot of gelignite in the stone of the trench which marks the centre of the dam.

Stockport has powers to build two reservoirs in the valley, but is only to go on with one, the larger of the two. Fernilee is the biggest waterworks which the Corporation has undertaken. In 1825 the town's first public supply was provided by a private company. At the beginning of this century the needs of the area of supply were about 2,700,000 gallons, and the Corporation then secured powers to make the Kinder waterworks. This provided 515,000,000 gallons. Now the demand for water has increased to 6,700,000 gallons. Twenty years ago the daily demand was for 20 gallons a head; now it is 33 gallons. The continual increase encouraged the Council to build Fernilee, which will have a minimum

capacity of 200,000,000 gallons and an estimated daily minimum yield of 4,000,000 gallons.

The Submerged Area

This is a large work and will cost £550,000, and it is of peculiar interest to the industrial districts of Lancashire because the Goyt Valley is one of the popular walking-places at hand. It rises to the moors of the Cat and Fiddle, and lies north and south, between Shining Tor and Buxton and between Macclesfield and Peak Forest. The position of the reservoir is thus doubly interesting. The dam will be across the valley at a point about 500 yards north of the gunpowder mills. It will be 130ft. high above the present water level, and will bridge the valley with a road 650ft. from bank to bank. This earthen embankment, which will represent a diamond in plan, with points north and south, will hold the water up to the 790ft. contour line, and then submerge the valley for a distance of a mile and a half south. Bunsal Farm will just escape submergence, but the ford below it will disappear. Other crossings which now exist between Bunsal and the dam will of course also disappear.

Much interest has been shown in these paths and the committee has given the most emphatic promises that it will do

everything within its power to substitute so far as possible the ways that have been lost. To-day Alderman Padmore made an eloquent comment upon the natural beauties of the Goyt: "a place of charm and enchantment," he said, "a place where beauty need not give way to usefulness. The committee and the Corporation, too, are alive to this fact and want to preserve as much as they can all that is beautiful and fair in the valley of the Goyt. We believe its charm may even be enhanced."

Footpath Provision

Councillor Tom Baldwin added to this the information that the committee had obtained photographs of all the beauty spots within the valley, and had arranged to get aeroplane photographs taken to show its present state. All this means, in practical expression, that a way will be made at the head of the lake, near Bunsal, over the Goyt, and that people will be able to walk, as now, along both sides, and may cross by the dam.

But it will be five years before the dam is built, and the plans of the corporation may be developed further in that time. The work is in the hands of Messrs. Lehan, Mackenzie, and Shand, of Derby, directed by Messrs. G. H. Hill and Sons, consulting engineers, of Manchester. All these are well known to the corporation,

for Mr. Hill was engineer for the Kinder waterworks, which was built by direct labour, and Mr. Mackenzie and Mr. Shand were also employed in controlling that construction. Already the work is well advanced at Fernilee. Within two years Stockport will be receiving water in its Lyme Park reservoirs from a small basin which is to be put higher up in the Goyt; but this is a small work compared with the dam. So far the contractors have been making approaches and putting in power units. An 11,000-volt line has been brought down from the pylon route between Stockport and Buxton. A steam navy is at work and a number of cranes. The trench has been excavated to a depth of ten or eleven feet on the eastern bank, and borings have been taken down to a depth of 120 feet from the bank top. The site of the embankment is clearly marked on the ground.

The dam will be of earth, the trench being concreted to ground level. Mr Hill hopes to find clay on the site, a little north of the dam, and will take the earth to complete the banks out of the site of the reservoir.

What stone is used will be chiefly that taken from the trench or from its neighbourhood. The building will employ 35 or 40 men continuously for about five years, and all but a tenth are to be chosen through the Stockport employment exchanges. Already 250 travel on to Fernilee and back to Stockport every day.

THAT WAS THE GOYT VALLEY

The Blasting Advance of Industry

(From our Special Correspondent.)

WHALEY BRIDGE, THURSDAY.

Ramblers revisiting the once happy Valley of the Goyt will note a change. They will not so much note it as be struck in the face by it. The trees which fledged the deep slopes are gone, or mostly gone. It was not a case of the woodman failing to spare them. They were dragged down, trunk and branch, by a tractor, and, where that failed, blown out. The green quietude has departed, expelled by the thud of pumps. Birds there may still be, but of picturesque, bell-trousered navvies there are more. Huts and derricks and piles of ragged stone, scaffolding, bare hillsides, balks of timber, pipelines, dinner-cans, dinners done up in red handkerchiefs, loud orders shouted down ominous shafts, and the stark trunks of the ravaged trees proclaim the arrival of a new dispensation.

The new reservoir of the Stockport Corporation is coming into being daily. Yesterday they finished the sinking of the valve shaft. To-day they got down to 98ft 9in. in the great, cavernous, gurgling trench that is the foundation of the dam, which will cut the Goyt Valley in two just below Fernilee. A lesser dam will be built about a mile and a quarter down the valley at the far end of the containing ground. This trench is the most conspicuous feature of the desolated landscape. The central timbering that goes down into its gloomy depths looks exactly as though step-ladders for giants had been let down. But one must not try to descend that way. There are more negotiable ladders for men, and it is only by going, rung by rung, down one of these to the first staging that an idea is obtained of what a 200ft. shaft—for it will be that at the deepest—will look like from above. Down into the oozy bottom, where pigmies work in cool weather, the derricks lower their skips. Wherever a derrick dips its big pail there are two men on the job to fill it, and two men to timber every six feet of excavation.

Dynamite and Concrete

The blasting operations, of which an ominous notice higher up the valley gives warning, take place down here, for it is not all mud and slime and gritty gravel that has to be got to the surface but obdurate, hard rock on which a pickaxe might work for a week without much progress. These blasting operations take place in the dinner-hour. Drills are busy all day somewhere or other at the bottom, but it is when the men are sampling the contents of their big red handkerchiefs in the fresh air above that the "powder-monkey" gets to work, and the roar of detonations reverberates along the valley.

The dam, when complete, will stretch 750 feet from bank to bank. Its lower core will be the wall of reinforced concrete that will fill up the awful cavity that now trenches the valley. All the timber will come out as the concreting proceeds. This concrete wall will rise to about 12 feet from the surface, and

will then be surmounted by an upper core of clay in the form of an inverted V, which itself will be strengthened to a thickness of from 24 to 30 feet by other adhesive, non-poisonous material. But this feat of engineering, mighty as it looks, is not the only job on hand.

The little Rive, Goyt prattles along all unconscious that it is to be piped. More than that, it is to be turned out of its present pleasant course, away from its marginal buttercups and daisies, and sent, small trout and all, under a hill. It will henceforth fulfil the destiny of a useful life in a dark tunnel instead of sporting along without a care in the world under the changing sky. It is for that that the valve shaft has been sunk, for the Goyt will still be amenable to man's will as a water-distributing agency though turned so many fathoms deep when the watershed has done its work.

I had a look into this straightened passage prepared for the Goyt. It was like the entrance to some grotto of the underworld, with fairy lights (electric) receding, one after another, into the darkness. Only I should have required waders to have followed its course. Up on the hill above me a mammoth pile of stone indicated the sort of stuff, and the unimaginable quantity of it, that has come out of the tunnel in the making. These piles of rock that stud the once-green slopes will be crushed up for concrete in due time, so that what has come out of the earth will go back into it again, an economy in redistribution that somewhat reconciles one to the present havoc.

Geological Mysteries

There are geological mysteries under this valley. To fill up the subterranean interstices of the rock—"grouting" they call it—borers on the heights of the valley work down to the solid rock, and into the bores so made cement is driven by the compressed-air process. The object of this is for the cement to find out and fill up all lateral fissures and the emptinesses they lead to, but some of the cement has come to the surface again as far off as Whaley Bridge and at other places on the scene of operations. It exudes from the ground in bluey-whitish patches, and I found it banking up the course of a tumbling upland rill. But the engineers will get the better of its tricks at long last.

This is a five-year job. It began last Christmas, and engages about six hundred men. A percentage of the "old navy chaps," as they were described to me, live in the little wooden houses that have sprung up on the site, but six 'bus-loads of workmen come in from Stockport every morning, and others lodge in Whaley Bridge, Fernilee, on farms, and wherever the good people of the district can make them comfortable.

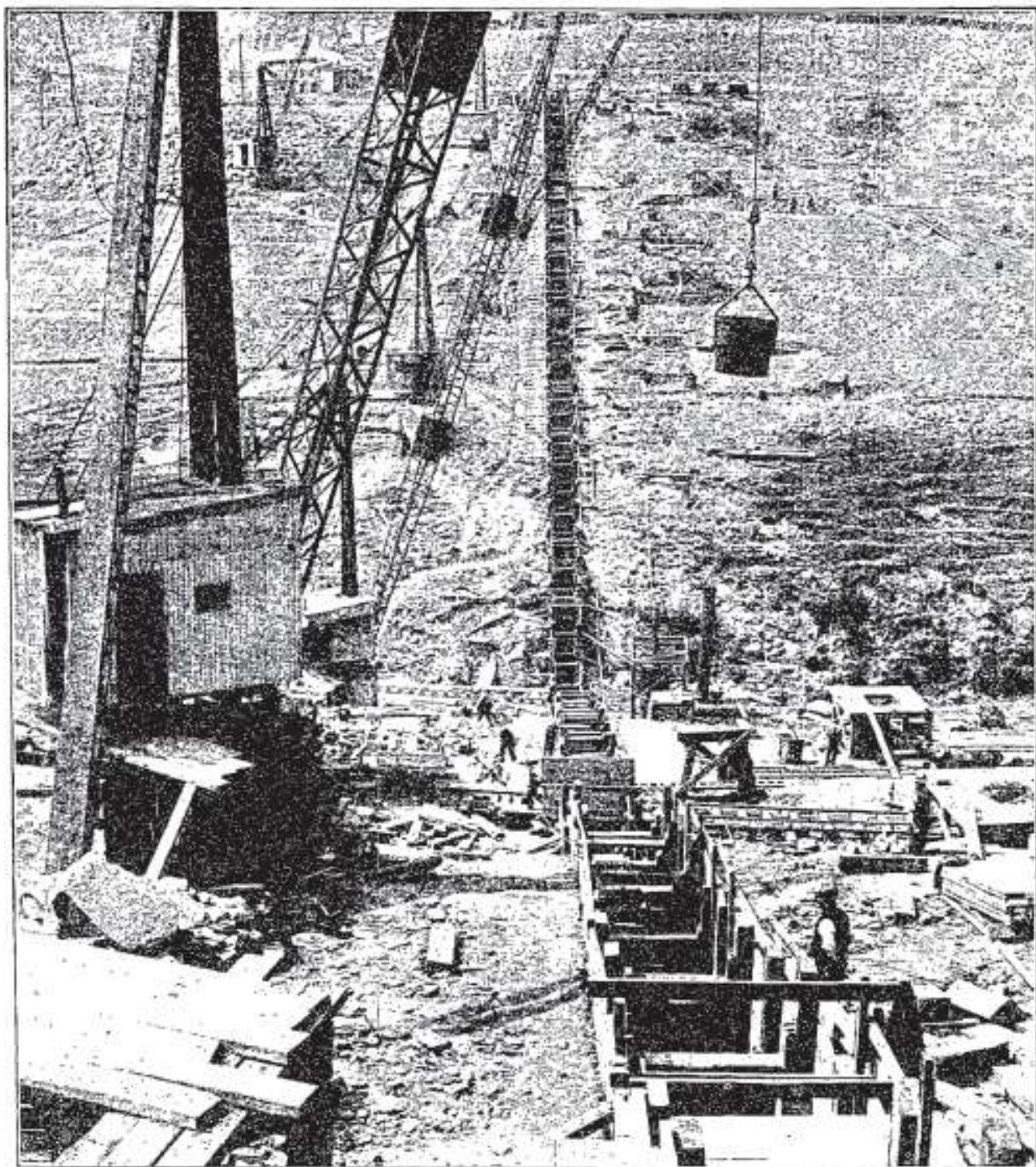
I would not like to bend my own back to a navy's job, but in this case there are compensations. To sit and eat one's dinner by the banks of the Goyt, to smoke a good pipe in the sweet air, to be big and muscular, ruddy and healthy, and to see the enduring result of your work as you do it must be among them.

[Picture on page 7.]

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A view of the dam which is being made across the Goyt Valley. The shaft is seventy to a hundred feet deep, and will be filled with reinforced concrete.