Locomotives :—The first engine to run on the road was the Samson, which is still in working order and was in use until 1884. This engine led in the procession of locomotives at the Chicago exhibition in 1883, and was driven by George Davidson, who came out with it from England in 1838.

The John Buddle and the Hercules were imported at the same time, and were similarly constructed; they were followed by the Albion and Pietou, which have inclined cylinders and tabular boilers, and subsequently in 1853 by the Valcan, which has the cylinders placed horizontally.

The boiler of the John Buddle is now used to drive a stationary engine, and the others are not beyond repair if use could be found for them. The veteran Samson is waiting for a purchaser * who will preserve it as a relie of past practice. It was built by Timothy Hackworth of Newcastle, weights 16 tons, 19 cwt., 0gr., 20 lbs., and with duplicate wheels and other parts cost.£2140. Cy.

The cylinders are 154 " diameter with a stroke of 16" and a valve area of 24 sq. ins. They sit vertically over the hind driving wheels, and have Watt's parallel motion instead of crossheads and slides. The wheels are 4' in diameter, six in number, with a wheel base of 8' 8"; they are made in two pieces, the annular portion is kept in position round the central hub by twelve circular keys of wood.

The boiler with a capacity of 540 gallons has a length of 13' 4", and carried a pressure of 60 hs. on the square inch. It has a single return flue of $\frac{3}{6}$ " plate, single rivetted, $26\frac{1}{2}$ " in d'sureter round the fire, and diminishing to 18" where it enters the smoke box. As constructed the tender goes in front, and the stoker alone attends to the firing, while the driver sits in an iron chair behind his engine.

The anthor among the notes of his father, who managed the Albion Mines for the General Mining Association for fourteen years, finds a eareful record of the work done by each locomotive; and between the years 1840 and 1853, the Samson on an average in each year was ont 113 days, ran 4721 miles a year, and hauled 21,913 chaldrons of cond, at an average annual cost of £61.98. 6d, cy. * for repairs, and £227. 138, 2d, Cy. for working expenses.

Cost of material and work.—The author has come aeross a few items of cost with which material and work of to-day may be compared, e.g., The actual cost of earth cuttings per yard ranged from ten pence to one shilling and three pence, 62,297 yards costing £3247.78. 5d. In later work the rate paid was even lower, and down to 5§d, per cubic yard for levelling a coal floor. At the present time, cuttings through the same elass of ground, stiff boulder elay with embedded rocks and pebbles, could not be nade under thirty cents per enbic yard.

Spruce $1\frac{1}{2}$ " and 2" boards were bought for 22 shillings per thousand; hendock at nineteen and six pence.

Hemlock logs not less than 15" diameter as follows :----

27	logs	36	feet	long	each	at	- 1 s.	6d.
297		25	44		44		3s.	
54	44	24	"	44	66		2s.	10d.
567	"	19	63	**			2s.	, 5d.
356	66	13	••	۰.	• •		1s.	9d. in all £233,0s, 9d.

Cedar sleepers from New Brunswick were delivered at 2s, each in 1846, and at from 1s, 9d. to 2s, 6d. in 1847.

Iron rails, 21,149 yards, weighed 617 tons 14 cwt., and required 258 tons 2 cwt, of metal chairs and 35 tons 17 cwt. of pins and wedges.

ing the stone to the mould of the arch 18"

thick, stones 7 " at face, 11 " at back at 12s. 6d. " "

Then a retaining wall 90 feet long by 24 feet high, 7 feet thick at the bottom, and 4 feet 3 inches wide at the top was built, the stope found and the face chisel dressed for 12s, 6d, per enbic yard.

* Price asked \$500,

* The £1 Cy, was worth 16s, sig.