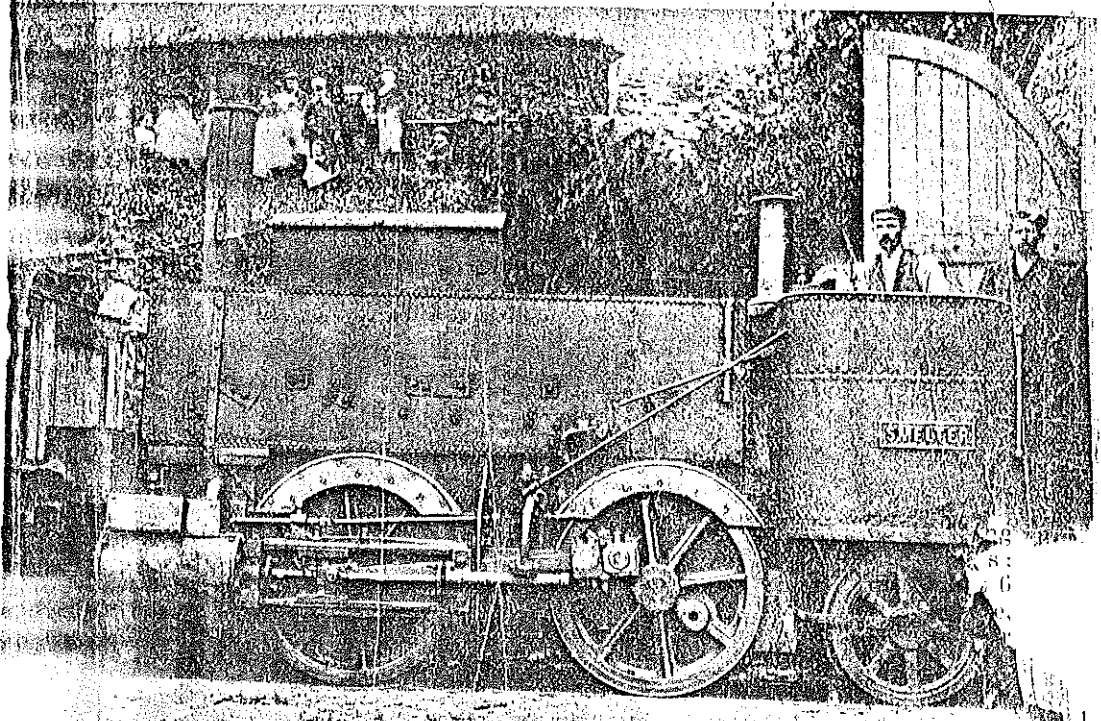
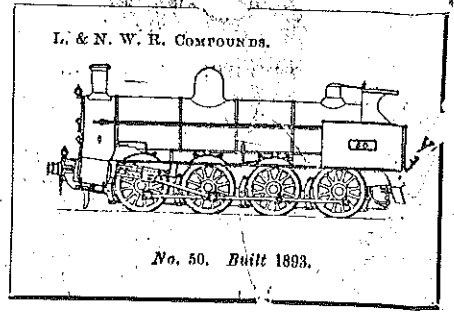


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FOUR-COUPLED TANK ENGINE, REDRUTH & CHACEWATER RY.

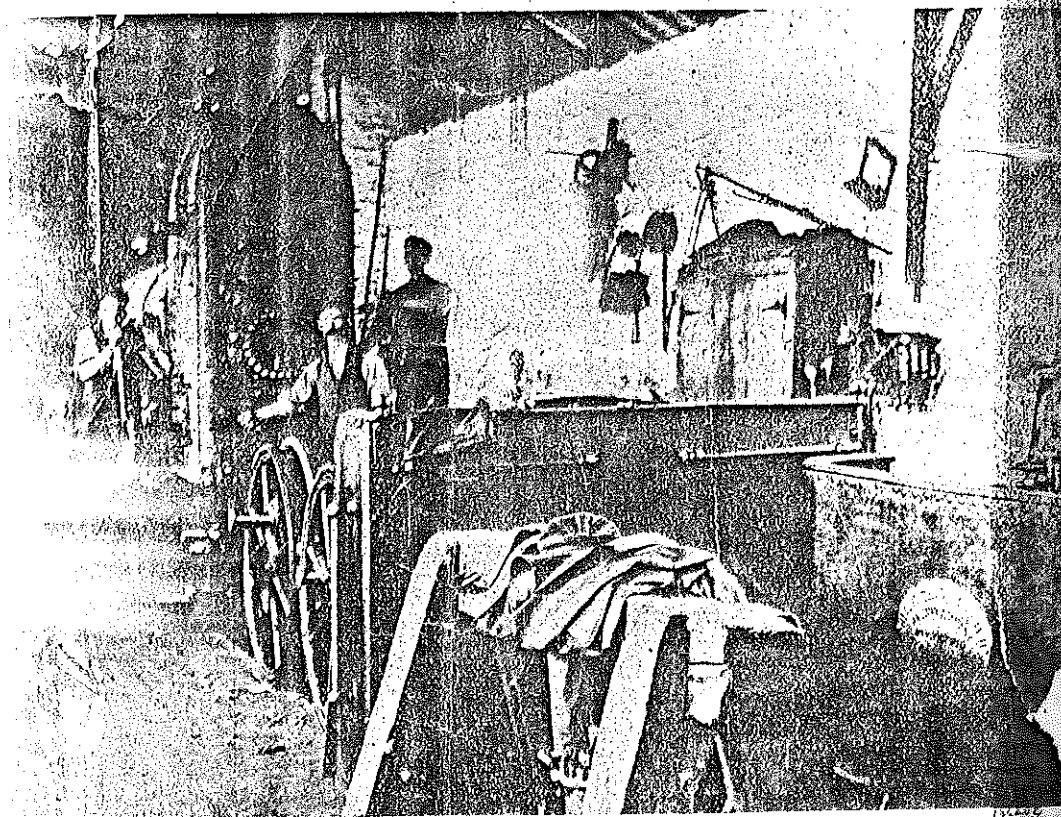
REDRUTH & CHACEWATER RY.
and particularly the western
wishes the railway enthusiast with
string reminiscences, and there may
in daily operation on the outskirts of
own of Redruth, where Wm. Murdock
first steam locomotive in this country
page 151) one of the oldest railways
the Redruth and Chacewater Ry.
the first to be built in Cornwall, has
about 10 miles of single line, and runs
Devoran Harbour Quay, Devoran Creek,
ish of Feock, to the eastern end of the
Redruth, and was constructed towards
of the first quarter of the last century
Parliament, 17/6/1824 (5 Geo. IV.,
to take coal, &c., to the mines in
hood of Redruth, and it was opene
1825.

The permanent way is practically in
original state, light cast iron rails in about 11
lengths, supported by chairs on stone sleepers
and laid to a gauge of 4-ft., being the only
way of this gauge in the United Kingdom.
line falls from a height of nearly 700-ft. at
Brae, Redruth, to about 10-ft. above sea level
Devoran by an almost continuous descent
crosses the G. W. R. Falmouth branch
Perranwell Viaduct.
Never having been used for passenger
there are of course no stations, but
places are provided at Carharrock and
with water tanks. No signals are used, nor
they wanted, inasmuch as only one locomotive
in steam at a time; in fact very often there
is now limited to one train each way per
day, that two trips are necessary
to the decline of the
district. The line has

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running expenses for a number of years, a
having been appointed in 1879.
was worked by horse power until the
1844, when steam locomotives were intro-
another Act of Parliament having been
passed May 9, 1853, cap. 6.
The two first locomotives were built in 1854
Messrs. Neilson & Co., and named "Miner"
and "Smelter," the latter of which forms the
subject of our first illustration. They were
essentially both six-wheeled engines with four-
coupled leading and driving wheels 3-ft. 6-in.
in diameter and a pair of trailing wheels 2-ft. 6-in.
in diameter, with outside cylinders 10-in. diameter

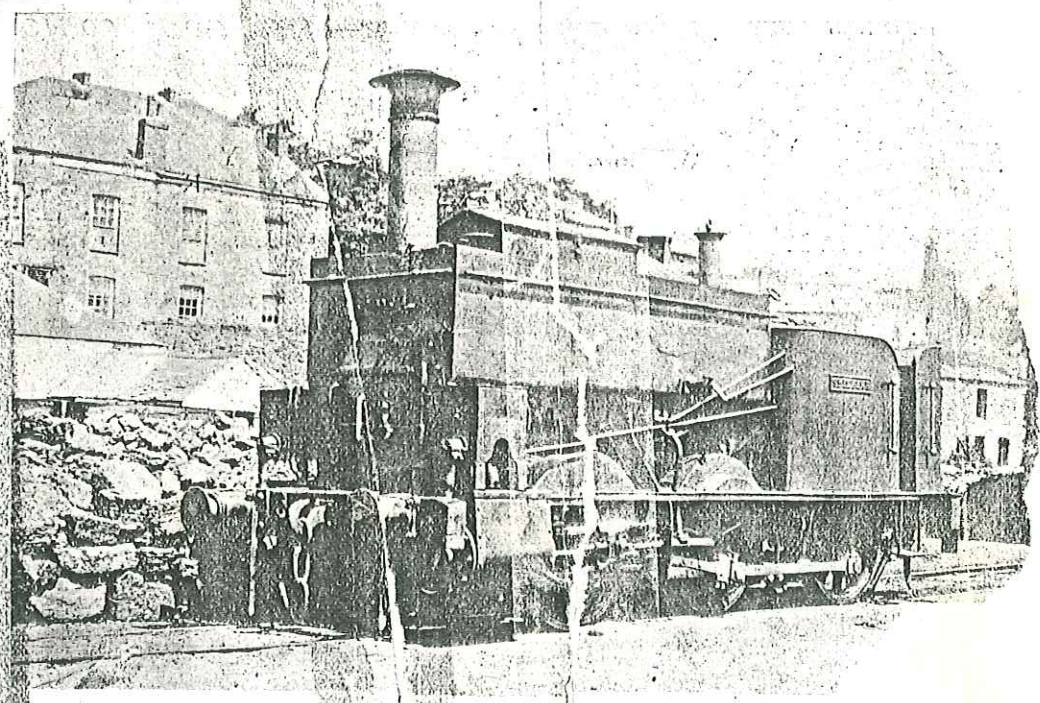
and has bright brass splashers for the
wheels. A peculiarity worth noticing
is the handrail on the chimney.
The "Miner" was rebuilt at Devoran
and converted into a 6-coupled engine
with 6-in. diameter wheels, the other
being unaltered. It bears an oval
plate on the bunker, with sunk letters
as follows: "Redruth & Chacewater Rail-
way Company, constructed at Devoran Work-
shops, spelling Chacewater with an 's,' altho
it now always spelt with a 'c.'" This en-
gine has a domed firebox and the frames are
rivetted on with the axle guards rivetted on.



ERECTING SHOP, DEVORAN WORKS, REDRUTH & CHACEWATER RY.

was bored out to 11-in.) by 18-in. stroke;
10-ft. long by 3-ft. diameter, with 99 tubes
of 11-in. diameter, firebox 3-ft. 6-in. long outside.
It is noticed that the wheels are of cast iron.
The "Miner" is still in its original condition
and is at Devoran Works, as spare engine,
in working order. It bears on one of the
plates the builders' brass plate: "Neilson and
Park Works, Glasgow, 1854," in raised
characters on red ground. Although the patches on
the wheels give proof of long service, the
condition of the working parts fully
attests the excellence of the workman-
ship. The boiler is painted brown.

At the time of writing the "Miner"
was rebuilt for the second time, and
our illustration shows the interior of the
shop at Devoran with this work in pro-
gress. It may be interesting to note that the
"Miner" in 1869, is still in such good order that
it has given a further term of service, but a
set of 12-in. diameter cylinders is being
ordered for the smaller sized ones it had previously
used. A third engine named "Spitfire,"
(our third picture) was added to the roll
in 1859. This engine was also built by
Neilson, who informs us that the
delivery was for



SIX-COUPLED TANK ENGINE, DEVORAN & CHACEWATER RY.

within 14 weeks from the date of the order. She has 6-coupled wrought iron driving wheels 3-ft 6-in. diameter with outside cylinders 12-in. diameter by 18-in. stroke. The boiler has 100 brass tubes 1 1/2-in. diameter. The feed pumps, like those of the "Smelter," are worked off the crossheads. The arrangement of sand gear is a novelty for this country; it consists of a worm gear in the sand box, revolved from the foot plate by turning a shaft. The "Spitfire" is painted dark green.

All the engines have bright brass chimney caps and safety valve covers, and are kept very clean.

The Devoran Works are not very extensive, the erecting shop having a staff of five men and a boy under the management of Mr. Andrew-artha, and the rebuilding and repair of the locomotives is undertaken here. There is also a shop for wagon building and repairs.

The superintendent of the railway and of the harbour at Devoran is Mr. J. F. Tyacke, to whom we are indebted for much of the foregoing, as well as for facilities for photographing the engines.