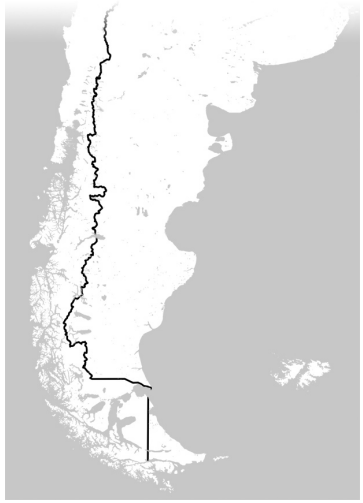
Supplement to Railways at the End of the World

Feb. 2015



Guessing that the publication of our book on the railways of Patagonia and the South Atlantic Islands might encourage a few more facts to creep out into the daylight, we had always intended to produce at least one supplement in PDF form for distribution to known purchasers of the book.

Here it is, and whilst it does not contain a huge amount of new information, we hope that those with a serious interest in South American railways will find it useful. Whether we create any further such supplements in the future will depend on what else we – or you – discover.

We have laid these pages out in a similar style to the book, in order that you can print them and keep them tucked inside, but the text has been made slightly larger, as many of you will print it out at home and the readability is likely to be less good than that which resulted from a modern offset press using coated paper.

The additional information contained below has been set out in the order of the book's chapters, and with each separate item headed by the appropriate book page number. This should make it easy for readers to cross reference items with the wider information given in that chapter.

The book as a whole

First of all we thank you for purchasing a copy, and for the many complimentary comments and reviews that have been forwarded to us. In general we were very pleased with the production, though a number of the background images could have been a little paler to make reading the text rather easier.

Chapter 2 The Central Railway of Chubut

p24 We now have a track plan for Puerto Madryn around 1911. It is not complete but shows four parallel tracks through the site of the new station, and five on the approach to the new steel jetty. Both this and many other track plans for Argentine Patagonian stations can be supplied to any modeller who is thinking of a recreating a particular location. In a very few cases elevations and plans for station buildings and goods sheds are also available.

Chapter 3 The routes to Neuquén and Patagones

No new information yet discovered.

Chapter 4 Three government broad gauge railways

p74 A number of interesting photos are now available online from the collection of Ing. Ariodante Giovacchini, one of the original engineers of the Puerto Deseado railway.[1] A couple of them show a metre gauge workshop van from the *FC Central Norte* standing on rails at Puerto Deseado. Presumably they had been brought up from the port on broad

1 A *taller mecánico ambulante* or mobile mechanical workshop from the *FC Central Norte* on site at Puerto Deseado around 1911, despite being an awful long way from the nearest operating metre gauge railway.[A] **2** shows one of the *FC Andino*'s Baldwin moguls, N°. 5, at work during the construction period at Puerto Deseado. It seems likely that these were withdrawn fairly quickly once construction had ceased.

gauge bogies or flats, but all the same it is interesting to think of even short lengths of metre gauge track at this location. The better of the two images is displayed on the following page, as is one of Ing. Giovacchini's views of ex-Andino Baldwin 2-6-0 N°. 5 which was used on construction trains.

pp78-9 One or two additional details about small tank locos used at Comodoro Rivadavia have been supplied by Luis Gutiérrez in Buenos Aires. As these seem to have operated in the port rather than on the mainline they are considered below under the Chapter 14 heading.

p97 Samuel Rachdi of the *Fahrplancenter* in Switzerland has kindly passed on more detail about the erstwhile *Tren Histórico* project at Bariloche. It appears that local businessmen in Bariloche had in 1998 proposed to lift part of the narrow gauge south of Ing. Jacobacci with the aim of moving both rails and stock to Bariloche for use for tourists on a section of the broad gauge which would become dual-gauged.

To support the aims without destroying the narrow gauge the International Cooperative for the Development of Latin American Railways (*AIFFLA*),[2] worked to create a consortium of the provinces of Chubut and Río Negro, local municipalities and the *Ferroclub Argentino*, which would run broad gauge steam trains out of Bariloche as far as Ing. Jacobacci, where they would connect with narrow gauge special trains.

There were apparently enthusiastic reactions from the majority of participants but, nothing from Bariloche municipality. The Ferroclub went ahead with the creation of a company, *TEA (Trenes Especiales Argentinos),* which later also operated a train in the north from Buenos Aires to Posadas in Corrientes. After long negotiations with *Ferrobaires* and *SEFEPA/Tren Patagónico*, the *Ferroclub*'s ex-*FCBAP* 2-8-0 and the stock were transferred to Bariloche and a regular weekly or twice-weekly tourist train to Perito Moreno began operating.

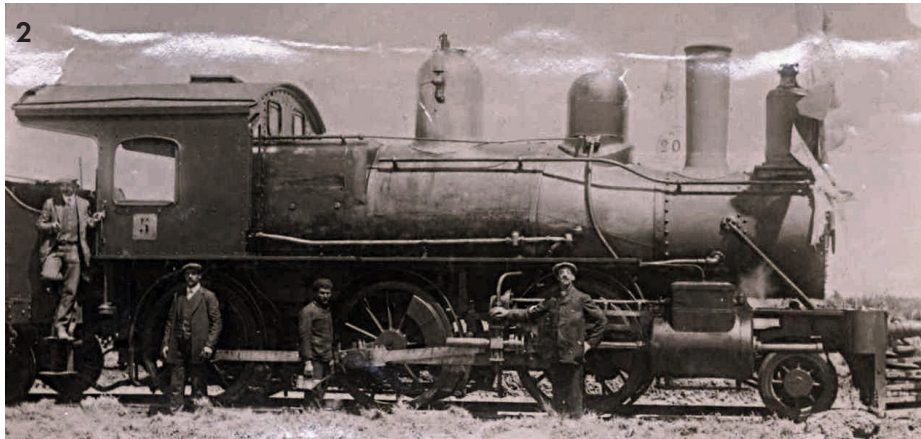
Negotiations with Río Negro province over the use of the narrow gauge were, however, extremely difficult, and thus that part of the project never came to fruition. The trains out of Bariloche continued very successfully until 2006, but thereafter Río Negro asked a high fee for the use of the *SEFEPA* workshops in Bariloche and *SEFEPA* themselves raised the track access fees. The regularity of operations thus declined and the condition of the stock deteriorated. In 2009 *TEA* was ready to give up but Río Negro province now asked for the operation to continue. However, none of the money promised for repairs to the loco materialised, so after just one trip that year the whole project terminated.

It has also been mentioned that the operation had been run under the auspices of a municipal concession, and that these and provincial concessions do not have the authority of federal concessions, thus handicapping operators in negotiations.

p80 Further south, an ex-*FC Andino* coach from the Puerto Deseado railway had been preserved in the grounds of the provincial hospital in Rawson, as illustrated in the book. In 2014 this was moved by road to the site of Jaramillo station on the route to Las Heras, where apparently a museum is being created. Jaramillo station is just 7 km. from the point where *Ruta 3*, the main north-south road through Patagonia, crosses the railway, and is thus readily accessible to tourists from the north.

p89 A few further snippets of information have appeared about some of the broad gauge *coches motor*. The 'home-made' refrigerated railcar was in fact numbered CMF2 rather than CM52 as stated in the table and caption, the F presumably standing for *frigorífico*. That raises the question, was there a CMF1? Furthermore, in addition to the early two-axled cars at Comodoro Rivadavia numbered 3-5, a photo has now been seen showing a CM6 with the bodywork style having a slightly pointed end, as shown in the third photo on page 82.

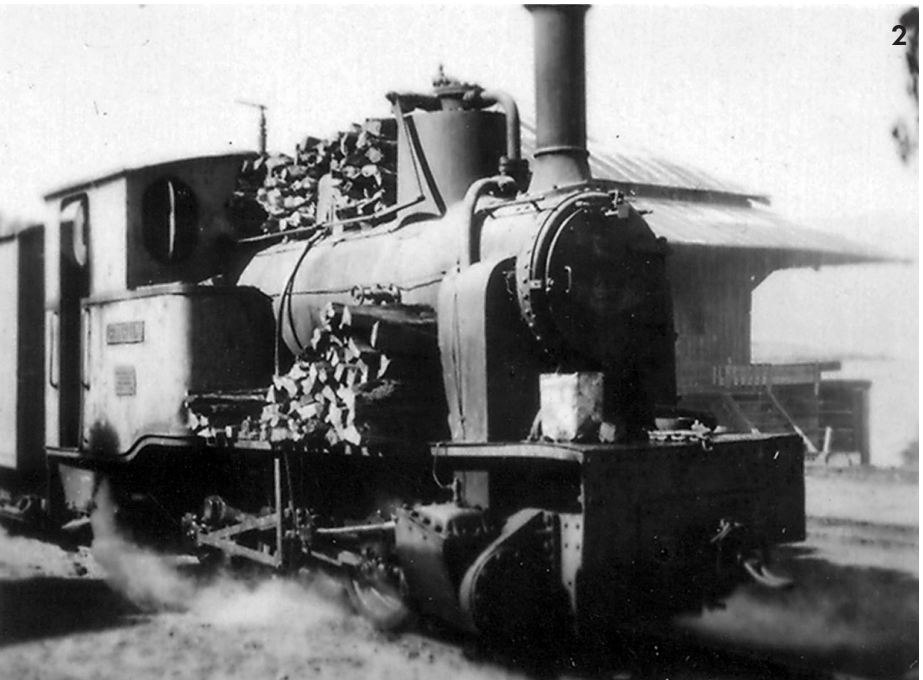
1


2

1

Chapter 5 The south end of the Chilean *Red Sur*

p102 The North & South American Construction Company, referred to on this page and elsewhere, deserves a little more attention. Whilst much of the capital may have come from US sources and it seems to have been based in New York, the name is not merely an acknowledgement of this but is also a punning reference to its investor 'Colonel' John Thomas North, 'the nitrate king'.



2

John North was born at Holbeck, Leeds, in 1842 and trained as a boiler-maker and fitter, eventually working for John Fowler & Co., the locomotive and traction engine builder. He moved out to Chile in the mid-1860s, initially to work on boilers, but soon showed a rapacious ability as an entrepreneur. He moved up to Tarapacá, which was then part of Peru, and snapped up nitrate shares at rock-bottom prices during the War of the Pacific. His empire grew to include North's Navigation Collieries in South Wales, the Nitrate Railways in northern Chile, the Arauco Coal Co. and its railway in the south, and many other interests.[3]

The N&SACCo was awarded government contracts in 1889,[4] to construct not only the full length of the southern mainline from Victoria to Osorno, but also broad gauge branches to Melipilla, Peumo, Alcones and Mulchen, and 400 km. of metre gauge lines including the Talca to Constitución branch in the south. It is interesting to realise that if these tasks had come to fruition the *Red Sur* trunk line to Puerto Montt might well have been built in the logical order from north to south rather than there being an isolated 'Valdivia Railway' for ten years or more.

However, North's stronghold in Tarapacá – by now a province of Chile – was increasingly acting like a separate state, and President Balmaceda at the beginning of the 1890s resolved to force competition reforms through Congress to break his power. This was one of the issues that eventually led to the outbreak of civil war in 1891, and, whilst North had unsurprisingly allied himself with the congressional winning side, the inability to proceed with railway construction and much else during the conflict seems to have led directly to the N&SACCo bankruptcy and eventually to a diminishing of North's business empire. He had built himself a substantial position in London society, and a country house at Avery Hill in Kent, but by the time of his death in 1896 his position as a nitrate and railway 'king' was largely over.

p104 The small construction locos listed at the foot of the table may well be the Manning Wardles mentioned at the top, if the weights given are assumed to be incorrect.

p117 The photo above left shows an 0-6-0ST apparently on construction work at Empalme Cocule, the junction for the Lago Ranco branch. The hand-written caption is in the same hand as those reproduced in the book on page 117. The loco would appear to be a Hudswell Clarke from the five built in 1912-14 almost certainly for the port of Valparaiso. These were HC 1009, 1010, 1027, 1053 and 1076, and presumably this

Left, 1, is a Hudswell Clarke 0-6-0ST at Empalme Cocule in 1931,[B] one of five similar broad gauge saddle tanks that seem to have been bought originally for the port of Valparaiso. Below it, **2**, is a not-yet-firmly-identified 0-6-0WT, probably at Riñihue station on the *FC Trasandino por San Martín*.[B] Our current best guess is that it is by Hanomag. Any confirmation or contradiction of this would be welcomed.

Three locos at Los Lagos for the Riñihue line in 1974.[c] **1** is *tipo* P 2-8-0 N°. 3227, built by Borsig around 1925. **2** is *tipo* Q 2-6-0 N°. 3076, by Henschel. As these two are seen lying outside the back of the shed it seems likely that they had fallen out of use by this time. **3,** on the other hand, shows *tipo* R 2-8-0 N°. 3087, Rogers 1900, inside the shed. This is the loco now preserved at the Quinta Normal railway museum in Santiago.

one must have been hired out or sold on to *Barriga, Wachholtz y Alessandri, Cia. Ltda.*, the contractors for the Lago Ranco line.

p124 Several additional diesel locos need to be added to the table on this page. D3303-6 seem to be similar to numbers 3301-3, and had been numbered 7212, 7237 and 7275 (though not necessarily in that order) over a green livery during their previous existence in the USA. They arrived during March 2013. The first of the original batch, 3301, seems to have been BNSF 6379 before export to Chile and overhaul by *Casagrande Motori* in 2011.

Chapter 6 Another Trans-Andine attempt

p136 Pablo Moraga has very kindly provided the fascinating photo reproduced at the foot of the previous page. This appears to show a wood-burning 0-6-0-WT, possibly by Hanomag, at Riñihue station with the goods shed and the lake in the background. If the attribution to Hanomag is confirmed, this may require our earlier speculation that the railway's locos were by Borsig to be re-assessed.

p138 Photos of *EFE* locos that worked on the line in its final years have become available through www.thetransportlibrary.co.uk who sell images from a number of collections of transport photographs. Tommy Farr visited Los Lagos in 1974 and found three engines lying at the shed there. These, of course, may not have been the only locos allocated to this branch at the time.

Metre gauge locos at Los Lagos in 1974 **Table 6.9**

Type	Wheels	Builder & date	Running N°.	Notes
P	2-8-0	Borsig ? of 1925?	**3227**	Was under Concepción supervision by 1952.
Q	2-6-0	Henschel 11080 of 1912	**3076**	Originally *grupo* 19, batch numbered 71-80
R	2-8-0	Rogers 5149? of 1900	**3087**	Originally *grupo* 20, batch numbered 33-38

Source: visit by Tommy Farr in 1974.

The link and pin coupler mounted on the *carro plano* adjacent to N°. 3076 suggests that this railway did indeed use such couplers before the takeover by the *EFE*, in contrast to the knuckle couplers fitted to the locos in the photos.

p144 Nelson Beseler, on one of his many expeditions to explore disused railway lines in southern Chile, has noted the remains of a turn-

1

2

3

table pit at Riñihue station, presumably at the north end of the site. This was no doubt constructed by the EFE after their takeover in 1943, to accommodate the larger tender engines that they introduced in place of the original tank locos.

Señor Beseler has also reached the bridge site over the Quinchilca river, and his photos show that the concrete abutments survive, though the steel spans have gone.

Chapter 7 60cm. gauge on the Isla Grande de Chiloé

p146 Further examination of correspondence relating to the planning of the Chiloé railway has made it clear that there were originally no tenders received for the task of working up the first stage of the alignment proposed by Ing. Heuisler into a detailed specification. It begins to look as though the Belgian surveyors who were eventually awarded the contract were perhaps persuaded into taking this on, possibly as an apparent way of breaking into the Chilean surveying market. Maybe local engineers and surveyors had indeed foreseen problems with this line and left it to the newcomers to make fools of themselves.[5]

p148 Similar delvings in *ArNAd* documents have revealed that Señor Antonio Koch's petition to build a branch from Ancud to Chacaopara (the ferry terminal linking Chiloé to the mainland) was strongly opposed by local people on the grounds that if laid along the 4 m. wide public road it would cause difficulties for other travellers.[6]

p151 The numbering of the *EFE*'s 60 cm. gauge locos needs a little more explanation. It seems that the classification of these locos into *tipos* 'a' to 'h' occurred at the same time as their numbering into a single range: 25, and 38 to 54. This may well have been around 1917, with each number then having 5000 added in the 1920s to separate them from locos of wider gauges. Thus the numbering of the locos was almost certainly in perfect type order, with the type 'e' being N°. 51, and the type 'd' Davenports possibly being N°s. 49 and 50. There is still a missing loco N°. 48, however, perhaps another *tipo* 'c' later transferred out of *EFE* stock.

Numbers above 5054 seem to have been allocated to locos received later by the *EFE*, either after years working for the *DOP* or when built specifically to add to the *EFE* fleet. Thus further type 'c' 0-6-0Ts were allocated numbers 5056-7 even though they will have been built along with numbers 5040-5 in 1909 and 1912, whilst further type 'a' 0-6-2Ts numbered 5048-60 arrived new from Arnold Jung in 1929.

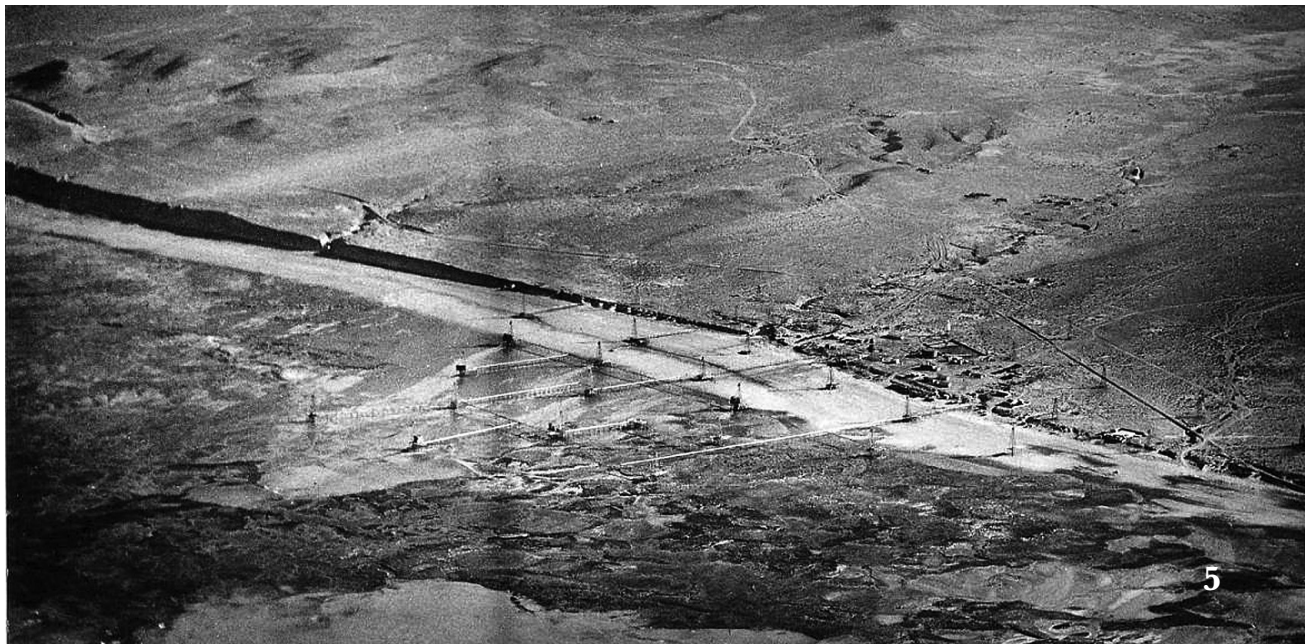
The footnotes to the big table of narrow gauge locos on this page mention the Maffei 0-4-0WTs preserved at San Eugenio and Temuco, and also the 0-6-0WT in the Quinta Normal Museum that has previously been identified by someone as Smoschewer 730. This last machine now seems much more likely to be one of Maffei 4341-4 of 1929, as many of the motion parts are identical to the afore-mentioned 0-4-0WTs which were built in 1928. This batch of four 0-6-0WTs were the only engines of that wheel arrangement and 60 cm. gauge supplied by Maffei to Chile, though the initial customer is unknown.

p156 It seems likely that Ancud station was constructed without a head-shunt at the western end, contrary to the early proposed layout reproduced as a plan on this page.

Chapter 8 The 1922 75 cm. gauge empire

p192 Jim Ballantyne has written pointing out that the big bridge over the Río Chubut at El Maitén bears a plaque proclaiming its construction by the 'Patent Shaft & Axletree Co., Wednesbury. 1890'. This presumably means that the girders were second-hand from some earlier location, possibly on the *FCCN*, though we are unlikely to find out from where.

p201 As mentioned in the text on this page, it has been difficult to identify precisely the route of the railway to Punta Piedras as much of it has now been subsumed within the built-up area of the city of Comodoro Rivadavia. However, a newly-discovered aerial photograph, **The aerial photograph below**, probably from the 1940s, shows the area known as Playa 99 after the first oil well there which was numbered *pozo* 99 (= well 99). A large number of wells can be seen, many of them out on the reef to seaward of the shoreline. Also clearly visible is the 75 cm. gauge railway to Punta Piedras. At the right hand edge of the image it is at the shore, but then swings inland behind the main oil installations before returning to run a couple of hundred metres behind the low cliffs. About one quarter of the way from the left hand edge of the photo it bends to cross a gully before straightening out again. The 1952 accident occurred just right of this, on one of those bends.



The new funicular at the old Puerto Bories *frigorífico* site near Puerto Natales, **1**, and the O&K 0-4-0WT *Valdés Vergara* as now preserved within the old buildings, **2**.[D] Far right, **3**, is a substantial 75 cm. gauge tank loco at the Salina La Aurora on the Neuquén route.[E] This was almost certainly an 0-8-0T, and probably by O&K. The discovery of this photo has prompted a rethink about the railway's early motive power. It seems likely that the loco is O&K 4168 or 4974, both of which were sent to the O&K dealer in Buenos Aires for stock. Examination of other photos of this railway has shown up the later fitting of side buffers, as seen here, and the addition of an improvised superheater to the surviving Krauss 0-6-0WT!

below, shows the middle part of the route in its early days, and helps to put the alignment into the topographic context.

Chapter 9 Out on the South Atlantic Islands

p216 It has been recorded that a single Hudson skip wagon chassis lies beside the main Stanley to Mount Pleasant road somewhere south of the town. The source is unknown.

p218 A recent photo of the jetty at Chartres shows surviving rail track to be of a fairly narrow gauge, probably 60 cm. or 2′, rather than the wider gauges seen elsewhere on jetties in the islands.

Chapter 10 Old and new in Ushuaia

p297 Chris Parrott recently returned to Ushuaia for a short visit. He reports that work is now under way on the duplication of the section of route from Puente Quemado to La Macarena. This will be to a gentler grade than the existing line, to assist uphill trains. Downhill running back to the Estación del Fin del Mundo will continue to use the original line.

In the workshops construction of a new Garratt is progressing well. The initial focus was on one power bogie that could if necessary become a spare for the existing locos, but now work has also begun on the new boiler cradle. A first class version of the 14xx series coaches is also to be built, whilst the early Winson-built *coche baño* toilet car (E1003) has been scrapped.

Chapter 11 Railways of the *estancias* and *frigoríficos*

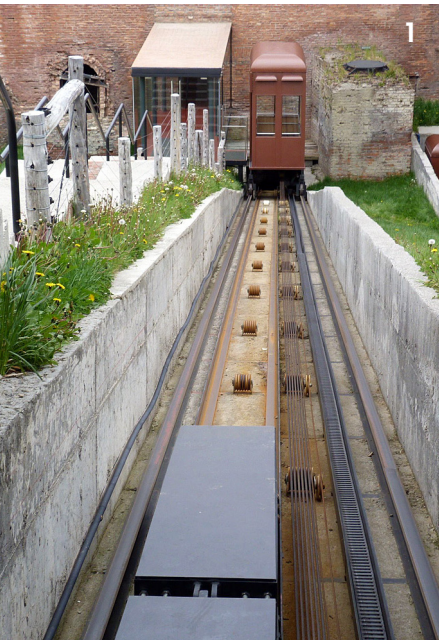
p265 Ian Leith reports that the O&K 0-4-0WT from the Puerto Bories railway is now on display within part of the old *frigorífico* which has been converted into an hotel and historical interpretative centre. Also in connection with the tourist development a very short funicular railway has been provided to join two levels of the works on the steep hillside.

p266 Since this chapter seems be the repository for mentions of any short jetty railways not specifically related to any other topic, it is perhaps worth mentioning two such lines that ran out to the water-front in San Antonio Oeste. Originally the *FCE* broad gauge track ran through the main town station (and past the *COMSAL* works) before curving left 180º to a terminus at the port station along the northern edge of the town. The *FCE* had its own jetty there with a broad gauge siding curving out onto it, but there were also two private jetties with *vías decauville* – one at the eastern end of the port station for *Lahusen y Cía*, and another at the western end seemingly from the *SA Importadora y Exportadora de la Patagonia*'s warehouse. In each case the narrow gauge lines crossed several broad gauge tracks at right angles before reaching the jetty.

In a similar vein, Ian Leith also sent us a photograph found in the San Julián pioneers' museum showing a length of track amongst bales of wool, presumably at San Julián. No other information is known.

Chapter 12 Coal railways including the Río Turbio line

p267 A photo has recently come to light showing a German narrow


1

2

3

gauge loco at one of the coal mines at Máfil, north east of Valdivia in Chile. The picture is reproduced above, but the loco, whilst clearly of German origin, has not yet been identified.

p297 Suddenly, at the beginning of 2015, there has been spectacular progress on proposals to develop tourist traffic on the Río Turbio railway. Two of the 2-10-2s (numbers 107 and 119, and the tenders from 116 and 119) have been transferred north by road to Cromwell Marine in Buenos Aires for overhaul, as has the surviving Sentinel S6 steam wagon that had been preserved at Río Turbio. News has also reached us that five new passenger coaches are being constructed on former *RFIRT* coach underframes. The main contractor for all of these works is *G y G Metalmecánica SRL (*who have previously overhauled Henschels 104 and 114 for *La Trochita)*, with Cromwell being the sub-contractor for most mechanical work, and joinery on the coaches similarly delegated to *S-Ingenería* at Trevelin.

At the same time rumours have been circulating that a dozen more ex *BDẐ* diesels are to be shipped from Septemvri to Patagonia. This has been confirmed by Argentine government sources but no further details are yet available.[7] A new source of traffic on the Río Turbio line will be limestone imported for the new 240MW power station at Río Turbio, presumably in connection with exhaust scrubbing to meet environmental regulations. This will test the locomotives as the line was laid out solely for eastbound loads and the westbound gradients are more severe.

Chapter 13 A variety of other mineral railways

p307 A photo of the Salina La Aurora's 80hp O&K has emerged, suprisingly revealing it to have been an 0-8-0T. This is displayed opposite.

Chapter 14 Other industrial railways

p316 Luis Gutiérrez has kindly pointed out a mistake in that the small tank loco pictured at the top left of this page in the book is not by Batignolles, but is in fact an ex-*FCS* class 3A 0-6-0T built by Beyer, Peacock in 1890. This does not appear in any of the published Comodoro Rivadavia lists, hence our confusion. The pair of 3As were sold by the *FCS* in 1913 to the harbour contractor C. H. Walker, from where at least one must have been passed on, either to the *FCE* or directly to Comodoro Rivadavia port.

Whilst on that topic Señor Gutiérrez also identifies the 'ogee' saddle tank illustrated on p317 as an *FCS* class 3B. The pair of these 0-4-0STs were built by Neilson in 1890, but one was also passed on to C. H. Walker, in 1915. There is still a slight doubt about the location of this photo as, although it was found in a collection focusing on the Comodoro area, the trees in the background suggest a less arid climate.

A steam loco at one of the coal mines at Mafíl, north east of Valdivia.[B] The loco has not been precisely identified though it may be by Jung. The gauge was probably 60 cm.

A plan of the Altos Hornos de Corral site in 1930, **1**, with proposed additions, and our own annotations in red. An additional photo, **2**, has also been reproduced here, looking from the top right corner of the plan back into the works and with the shoreline on the left. The right hand track climbs directly to the raised ore hopper siding, whilst the other track enters the main shoreside yard. It looks as though this had been taken during the short period after the closure and before the 1960 *maremoto* or *tsunami*.

p322 It is worth noting that a range of recent and old photos of the Caleta Maria sawmill site, at the head of Seno Almirantazgo on Tierra del Fuego, are available on the web,[8] and that they appear to show that an extensive 60 cm. gauge rail system was used there.

p324 The 1930 plan of the Altos Hornos de Corral may be of interest, though unfortunately this black & white copy does not make it possible to distinguish between *líneas férreas, existentes* and *líneas férreas, nuevas*. This must have been produced soon after the takeover by *ESVal*, when they were planning the necessary changes to use charcoal in the blast furnaces. The 1935 photo in the book shows rather more tracks than the plan, so presumably the scheme developed further after this had been produced, though the surviving relics indicate that there was only one high-level siding over the ore hoppers.

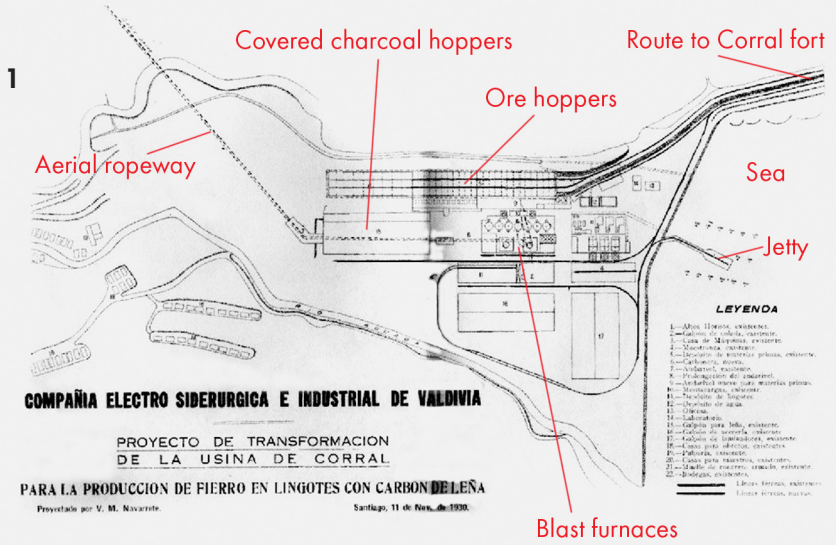
p327 Jim Ballantyne has reported that the ex Río Negro irrigation 0-4-0WT supposedly O&K 5745, that was brought to Britain by Preston Steam Services and then sold to a French enthusiast, carries the number 5160 on its motion. O&K 5160 is listed in the table on this page of the book as having originally been supplied to a dam project in Jujuy province in the north of Argentina, but on the completion of that scheme a move to the Río Negro works is more than possible. Whether the surviving loco is itself 5160 or whether there was merely some swopping of parts over the years is unknown.

p331 It has been pointed out that a surviving length of 50 cm. gauge track crosses a road outside the station at Puerto Varas on Lago Llanquihue. Its origins are unknown, but presumably related to some sort of industry, perhaps timber-related given the nature of the area. There was in the past a similar very narrow rail track on a nearby jetty, possibly part of the same system.

References

1 http://www.koluel.org/items/browse?collection=5
2 http://www.aiffla.com/
3 https://en.wikipedia.org/wiki/John_Thomas_North http://www.gracesguide.co.uk/John_Thomas_North or for more detail see William Edmundson, 2011, *The Nitrate King: A Biography of 'Colonel' John Thomas North*, Palgrave Macmillan, ISBN 978-0230112803.
4 *The Railroad & Engineering Journal*, Vol 63, January 1889, 50.
5 *ArNAd* (The *Archivo Nacional de la Administración* in Santiago) volume MOBR1843. Letter from Señor C. Konning to the *Ministro de Obras Públicas*, 5 March 1906.
6 *ArNAd* volume MOBR2016. Petition received 24 August 1907.

1



2

7 http://www.minplan.gob.ar/noticia/17160/ampliacion-del-parque-ferroviario-de-ycrt.html
8 http://www.redalyc.org/pdf/506/50629774003.pdf

Photo credits

A Ing. Giovacchini's photos from the http://www.koluel.org/ website. **B** Images reproduced by kind permission of Señor Pablo Moraga Feliu of Santiago. **C** Images reproduced by kind permission of Robin Fell of www.thetransportlibrary.co.uk **D** Photos kindly provided by Ian Leith. **E** Photo from the Facebook page of Señor Carmelo Haag.