via Dover ...

... to Pirenze

Inside: He knew he was right
Travelling on the Bull

The Times Digital

—Contents—

Letter to the Editor—Albert Isaacs.

The photo of the esteemed founder of the ATA, Jack McLean, which appears on page 2 of The Times for April 2021, includes an amazing coincidence. Jack is shown on the right of the photo and, although not explained in your caption, the person on Jack's right is Tony Shields of Shields Stamps & Coins. The coincidence is that both these men were born on 28th April although, obviously, in different years.

I worked with Tony Shields from 1989 to 1991, and during this time I introduced Tony to Jack, and it was my introduction that led to them getting together for a tea or coffee in the Lounge Car of The Overland, as per the illustration. From memory, I think that I may have also been lurking around somewhere in the background.

Including myself, I actually know no fewer than five people who share (shared) my birthday of 28th April!

I hope that my explanation of this strange quirk is of interest.

———————

Note by one of our proof-readers

Regarding birthdays, I don't know if Albert counts himself as "knowing my daughter" since they've never met or corresponded, but her birthday is also on April 28th. It all seems very impressive until we consider that if we put 30 people into a room and ask them for their birthdays, mathematically speaking there's a better than 50% chance two or more will share the same birthday. (I can't prove that right now, but I'm sure it's on the internet.).

Further note by the Editor

The number is actually 24. This problem was first posed and answered in 1947 by George Gamow (one of the builders of the Hydrogen Bomb) in his book "One, Two, Three … Infinity". The book is still in print. The maths gets harder as the number of "coincidences" grows, but we can say that Albert's "statistics" are not at all unusual, provided he has numerous friends and acquaintances.

Rock, Paper, Scissors– who wins in timetable preservation?

GEOFF LAMBERT *reflects on timetable collecting and preservation*

I**N HIS BOOK "***FASTER***"** (1999), James Gleick had a chapter titled "Short Term Memory", in which he discussed the evanescence of information and the desire—and sometimes the futility—of trying to preserve EVERYTHING in a form that will stand the test of time. Already, 22 years down the track, the problems that Gleick described have grown worse by two orders of magnitude. In a recent SMH article, the current scale of the problem was illustrated by the annual task of preserving Australian Federal Government records:-

- **"Digital"**: 2,986 terabytes — equivalent to 19 billion PDF pages;
- **Paper**: 92 kilometres (!) of shelf space.

What then of timetables?

Whether one regards the collection, study, analysis and preservation of "timetables" as a professional or amateur activity, the order of popular fixation by mode has been (and probably still is):

1. Rail (78%,35%)
2. Road (13%, 60%)
3. Air (0%, 0%)
4. Water (9%, 5%)

There may be some sort of hybrid between categories 1 and 2—light rail, tramways, interurbans etc. but, for my present purposes, I lump these into "Rail". The percentage figures against each mode represent the percentage of each type in the NTC database for all states in 2017 and NSW alone in 2018 when over 3,000 NSW timetables were in the latter.

That order would probably be the same were one to comb the archives of the planet and count the number of timetables that HAVE been produced and/or preserved. Victor Isaacs used to say that timetable collecting was a niche activity of a niche activity and I think he was mostly talking of rail – thus a "niche of a niche of a niche".

If we care to continue hairsplitting, we could, for "Rail" and "Road" at least, subdivide them into "Metropolitan" and "Intercity or Regional" and perhaps divide Air into "Domestic" and "International".

For most of these modes, we also need to factor in the entity that produced the timetables– the Operator or a Third Party such as Bradshaw, for instance. Bradshaw has the unusual distinction of being the **inventor** of the transport "timetable" - although he never used that word to describe what he had invented. In rail-mad Japan, there are about a dozen such companies in the game. In many countries it was often the practice of local business (especially Real Estate Agents) to provide their customers or potential customers with copies of timetables pertaining just to their immediate area, complete (of course) with self-boosting advertisements. Do these count?

Then again, I suppose, we have to think about a conceptual split between timetables as compendia in the form of stand-alone booklets and time tables as leaflets of a few pages. It seems to me that "collectors" prefer the former, but that "heritage value" often may reside with the latter because, for many operators, that was all they ever produced.

Finally ("finally?"), do we need to figure in whether timetables created for a Holiday or a special event ("Dapto Dogs" anyone?) need to be counted, studied and preserved.

Rail, being the first horse out of the starting gates (as it were) also built the templates for timetable "classification" - a two-way split between:

- Timetables for the customers ("PTTs")—handbills, wall-sheet timetables, etc.
- Timetables for the staff ("WTTs", "ETTs") in the "traditional" format.

And, let's not forget "Graphical Timetables"—my own particular favourite—for the wealth of information that can be crammed into a single sheet of paper. These really fall into the category of "Staff Timetables". Swiss Railways, for one, post these up as wall-sheet timetables

and the Swiss public, being "smarter than the average bear" seem to be able to grasp the meaning. The only known attempt to produce a "Public" version for the Customers (by Edwin Tufte for New Jersey suburban buses) was a total market failure.

In the ATA's template for the "timetables" we send to the State Library of Victoria (SLV), we have the following categories:

- Location Published
- Brand
- Region
- Service Provider
- Timetable Publisher
- Primary Mode
- Additional Mode
- Type (routine, special, etc.)
- "Public" or "Working"

… and many more specialised sub-categories and IDs besides. This set of categories and the words used to describe them, was pretty much driven by the SLV. Different Archive organisations (such as Public Record Offices) will slice and dice in different ways.

We should also, perhaps, think about a couple of the drivers behind timetable collecting– appearance and content. If you go to the catalog pages on the website of the NAOTC, you will find an impressive set of imagery of over 3,700 timetable PTT covers—from the Adirondack to the Zanesville and Western—but precious little reproduction of their content (see our own rear cover). The cover art of USA PTTs is the prime determinant of their monetary value and "collectability". The more lurid, the more expensive.

What shall it profit a man (it is always a man) if he should acquire all 76 of the Aberdeen & Rockfish Railroad's ETTs and all three of the Zealand Valley Railroad's ETTs and lose his sense of perspective as part of the bargain? And how shall it profit society if that man has done that? In a recent article in "Spectrum"- '*Locked-stationery-cupboards-and-other-memories-of-the-relatively-recent-*

past', Richard Glover expressed the hope that people of the future (2030!) will be fairly busting to know how the Sydney Morning Herald was produced when he started there in 1968. Somehow, I doubt it.

It would be interesting to know how much is contagion and how much is genetics. The founder of ATA, Jack McLean, was vigorously dissuaded from timetable collecting by his father—but he became infected anyway. His two sons also caught the bug– and their Dad did not try to dissuade them. Nevertheless, Jack once confided in me that it was "*just about as far removed from normal life as it is possible to get*".

Do we REALLY need to preserve on paper and/or on digital media every timetable ever produced? If not, how do we select and cull? It is hard to grasp how many timetables, of all transport modes, were issued and how many of them have irretrievably vanished. Are we the lesser for their vanishing?

For modes other than rail— particularly private enterprise suburban bus services—the majority of timetables are now— literally— CO_2 vapour. Is this a good or a bad thing? About 1,000 people on the planet might say it was a bad thing. The other 7 billion will just shrug.

There is, I think, a tricky semantic problem with "preserving timetables". The **timetable**, as "invented" by Bradshaw, and based upon the *Tabula Rasa* of money counters two millennia ago, is but one way of visualizing a "**schedule**". There are other ways, such as the ABC timetable, which is not really a "table" at all, but is an ordered list of possibilities to get from A to B to C. An Information Scientist would not see much difference. Wikipedia says this on the topic. *"Information Science" is that discipline that investigates the properties and behavior of information, the forces governing the flow of information, and the means of processing information for optimum accessibility and usability. This includes the investigation of information representations in both natural and artificial systems, the use of codes for efficient message transmission, and the study of information processing devices and techniques such as computers and their programming systems. .*

Insofar as consumers of transport are concerned, it is information they seek in their timetables, not bedtime reading. These people didn't take much convincing to switch from a classic timetable in paper form which they had to carry around, to a mobile phone that presented information in a non-classic way but tailored exactly to their needs of the moment– and (potentially) has every current timetable on the planet at their fingertips in a matter of milliseconds.

Two decades ago, when the 'problem' was much smaller, Gleick wrote:

*As the flow of information accelerates, we may have trouble keeping track of it all. In past times companies stored data on punch cards, as rows of holes; then on big, soft, eight-inch floppy disks, or on magnetic tapes, like Univac's Type IT-A. These, unfortunately, grow ragged and faint over years of sitting in the ghostly magnetic fields that are part of life on Earth. Maybe your company just saved data on mag cards for the mag-card IBM Selectric Typewriter. "**And where could you get one of those today, and why would you want to?**" said Ken Thibodeau, director of the Center for Electronic Records, responsible for the archiving of the uncountable records of the United States Government. IBM's published list of Discontinued Storage Media grew longer and longer: optical disks, data cartridges, mini-data cartridges, maxidata cartridges, diskettes of all sizes, and—somehow—mixed in with these, Fifty file tab dividers, 8-inch floppy disks had been a magnificent improvement over punch cards, and few were sorry to see file clerk begin to fade from the corporate vocabulary. But obsolescence came faster and faster. The life cycles of storage media for the data coursing through computers became as short as two to five years. We now stockpile our heritage on millions of hard drives and optical disks, and these flaky objects, too, promise-to go obsolete on a rapid schedule.*

*Many of the world's librarians, archivists, and Internet experts see a crisis looming. They warn that our burgeoning digital culture is heading for oblivion, and fast. "**There has never been a time of such drastic and irretrievable information loss**" says Stewart Brand, creator of the Whole Earth Catalog a generation ago. Our collective memory is already beginning to fade away, he argues. Future anthropologists will find our pottery but not our E-mail. We've turned into a total amnesiac, Brand says. We do short-term memory, period. The information storage medium of the past couple of millennia for*

words not writ in stone, anyway has of course been paper. Paper does decay with time, and it is fragile. One fire at the library at Alexandria in 391 BC destroyed a big piece of the ancient world's heritage. But to some people, paper is beginning to look good. As consumers of technology we're easily seduced. We mothball three-year-old PC's. But the data have time scales of their own, perhaps measured in centuries. Some companies have begun refreshing their aging records, by continually copying them onto new storage media using new software. Refreshing isn't easy, and most institutions have not yet realized that it may be necessary. Whatever media they use to save their digital information, they will not be able to read it without a machine—a finicky antique, most likely.

With paper, all you need is your eyes.

It's scary. And yet ... anyone wandering through the Internet might begin to feel that memory loss isn't the problem. Any silly message that you broadcast to a Usenet newsgroup is now being stored, for eternity or some approximation thereof, by a variety of commercial services. No matter that you gave your last posting a mere five seconds' thought; you should be prepared to hear your biographer read it back to you in your dotage. Will people really want future employers to dig up all the messages they've been posting to alt.dead.porn.stars and soc.support.depression.manic? Sometimes, as the years go by, privacy demands a gentle forgetfulness.

Many people sitting at company workstations toss off their E-mail as casually as they speak. But it does not disappear, as corporate lawyers across the country have realized. Neither sender nor recipient can delete it reliably. To the lawyers' occasional horror ... here comes the subpoena, it lingers on disk drives and backup tapes like a late-night guest who has forgotten how to leave.

Meanwhile, in its unofficial way, the Internet is transforming the way information is stored. The traditional function of libraries, gathering books for permanent storage or one-at-a-time lending, has been thoroughly confused. Archiving of the on-line world is not centralized. The network distributes memory. There is a kind of self-replication at work, with data employing humans in the effort to spread and reproduce. Web site by Web site, the data seem as frail as skywriting smoke in the breeze. Brewster Kahle, estimating the average lifetime of a Web page at seventy five days, created an Internet Archive to capture and store periodic snapshots of almost the entire Web. It saves pages that have been lost or

shut down by their owners. It amounts to about eight terabytes of data (tera- is trillion; peta- is next.) [the everyday computer of 2021 already has probably 2 terabytes]

Archivists have new practical problems to struggle with. Who, if anyone, will decide which parts of our culture are worth preserving for the hypothetical archaeologists of the future? Can any identification scheme help readers distinguish true copies from false copies in the on-line world's hall of mirrors? What arrays of optical or magnetic disks might provide reliability and redundancy for more than a few years of storage?

In the world before cyberspace, countless bridge hands were played and words spoken, and the memory vanished like vapour into the air. All that information, dissolved no sooner than it was formed. Once in a while people managed to snatch a bit back from the ether, with pen on paper or—later—audio- and video-tape. They succeeded in saving for posterity a tiny portion of what was worth saving: the speeches of Lincoln (the major ones), the poetry of Shakespeare (but not quite reliably), the plays of Sophocles (except the lost ones), and a few dozen terabytes more.

*We know the world is changing fast; we know we are near-sighted; we berate ourselves for our foreshortened time horizons, and we bury our detritus as lovingly as dogs burying bones. We bury it in time capsules, for example. The business of time capsules—once a rare bit of whimsy at world's fairs—has grown into an industry. The International Time Capsule Society estimates that more than ten thousand people and institutions have buried time capsules. They must think that future archaeologists will be grateful for the bounty of twentieth-century wristwatches, telephone books, decorative caps, CD ROM's, and ampules of Budweiser beer. One town council wanted to deposit some videotapes; its consultant, Greg Blonder, tried to explain that the tapes would rust from magnetic domain reversals and become useless as VCR's inevitably went obsolete. "**They couldn't believe there would be a time without videotapes, despite millennia of experience without even TV**", says Blonder. "**And when we showed them how sulfur compounds outgassing from the 1993 championship football would cause all the paper in the capsule to yellow and crack, things got a little tense**".*

The future packaging industry, as it calls itself, depends on the peculiar misconception that the future's problem will be not having enough of us. Most of all, the Internet turns a large fraction of

humanity into a sort of giant organism, an intermittently connected information-gathering creature. Really, amnesia doesn't seem to be its worst problem. This new being can't throw anything away. It is obsessive. It has forgotten that some baggage is better left behind. **Homo sapiens** *has become a packrat.*

Would it be overreaching to say there is no practical obstacle whatever now to the creation of an efficient index to all human knowledge, ideas and achievements, to the creation, that is, of a complete planetary memory for all mankind? *Those are H.G. Wells's words, written in 1937. "**And not simply an index**", he continued, "**The direct reproduction of the thing itself can be summoned to any properly prepared spot. This in itself is a fact of tremendous significance. A whole human memory can be, and probably in a short time will be, made accessible to every individual. And what is also of very great importance in this uncertain world where destruction becomes continually more frequent and unpredictable, is this—that it need not be concentrated in any one single place. It need not be vulnerable as a human head or a human heart is vulnerable. It can be reproduced exactly and fully, in Peru, China, Iceland, Central Africa, or wherever else … it can have at once, the concentration of a craniate animal and the diffused vitality of an amoeba.**" Wells was not imagining the internetworking of computers, of course. The new information -storing technology that inspired him was microfilm. He had no idea how fast it would go obsolete.* [as it happened, the ARHS in NSW did exactly that and gave the fiches to the State Library!]

PAPER TIMETABLES

There can be little doubt that the two Founding Fathers of the planet's only timetable collecting organisations, the NAOTC and the AATTC, were initially very single-minded about what they meant:
- Paper (then the only type of course);
- Rail and;
- "Internal" (rather than "Public")

Jack McLean called it "Railway Paper", a definition which allowed the inclusion of supplementary (but still internal) timetable-related material. His "acolytes" in Melbourne's Eastern Suburbs (in 2021 still the core of the organisation) were content enough to go along with this at first, but it wasn't long before they started to talk about other modes and other types. This was

not for Jack. In the articles he wrote for *"The Times"* in the Twentieth Century, 96% were about rail and 60% were about WTTs. For the remaining 145 authors, though, only 11% were about WTTs, although "Rail" still had a 67% share.

It is a moot point whether *The Times'* authors write for their audience or according to their predilection—more likely the latter. Thus, we cannot say that this "hit parade" represents the ATA members' interests and hence what they might like to see preserved. We can at least say that rail WTTs do exceptionally well in our auctions.

It is commonplace knowledge among ATA members that "paper timetables are disappearing" and this seems to be resented a good deal among them.

What boxes should we tick when deciding to preserve a "paper" timetable?

◊ Has at least one copy of it already been preserved in an accessible archive? By "accessible" , I mean "walk in off the street" accessible.

◊ Is it a "significant" or "rare" timetable in any sense, especially the service which it shows? i.e. is it something that a researcher or historian, rather than a voyeur, would be interested in?

◊ Is the "style" of the timetable worth preserving as an historic relic?

◊ Is it part of a "set" of near-identical timetables?

◊ Is it a mere reprint without significant new type-setting?

◊ How BIG is it and how much shelf space will it occupy? I perceive that the State Library of Victoria was somewhat startled to be asked to preserve thousands of big thick WTTs that already existed in other archives.

◊ Has it already been scanned somewhere, by somebody? This has been a big issue for libraries who have started to throw out their newspapers and documents (including timetables in Government Gazettes) once someone else had scanned them.

Reproducing, scanning and digitizing paper timetables

Reproductions

Around the world, museums (particularly transport museums) sell reproductions of old documents and timetables. The target audience is not normally transport enthusiasts or collectors—it is people with a nostalgia bent. In this market, the timetables don't really matter—it is the ancillary information, mostly advertisements of the "Cor –look at that!" type … of corsets, intestinal medications and accommodations such as Fawlty Towers (see The Times, p16, May 2011). The greater part of these have been photographic reproduction of old documents, printed in pocket-size by letterpress and are generally of high quality. AATTC did this a couple of times—I wonder how many still exist? Most are probably thrown away by the purchasers at the next Spring Clean.

Scanning (aka "digitizing")

These days, most "reproductions" of old paper things are made by scanning them to produce a set of images or images that have been transformed by Optical Character Recognition (OCR) to text. Scanning can be done commercially or as a "hobby". There are plenty of scanned transport timetables floating around on the Web, but a large proportion of them are quite unsatisfactory as items destined to be OCR'd. A prime example of what can go wrong is the scanning of old newspapers by the National Library of Australia (NLA). Because the NLA, which started this process early, decided to go with low-resolution colour JPEG imagery, much of the product is unreadable and has to be re-transcribed by an army of volunteer proof-readers. This is a particular problem with subsequent digitisation by Optical Character Recognition (OCR) software. A lot of people and even corporate entities (e.g. QR) who scan timetables make this mistake. In Australia, ARHS (NSW) and Bob Taaffe have avoided such mistakes. Bob's crisp scans can fit a 65-page NSWGR Northern Division WTT into a PDF of a couple of megabytes. It is theoretically possible to run an OCR engine over such a timetable to convert it to text

with a view to analysis. This is a hopeless task for old-fashioned higgledy-piggledy hot metal typeset timetables, but is eminently doable for computer-typeset paper timetables.

Should ALL old "paper-only" timetables also be digitized before going into an archive?

Of course, people and institutions can choose to do this, but the fraction of old timetables that escape their old "paper gaols" is surely minuscule … imagine trying to digitize those 170,000 ETTs! It is not actually **totally** beyond imagination … The USA Patent Office has digitized all of its 10.5 million paper patent applications from 1790 to the beginning of the 21st century, when paper applications were done away with. I once asked the Office "how did you do that?" and was told "easy- we used interns". "Interns?" "Yes — school kids on their summer holidays." It seems like a big ask for ATA though.

In Australia, ARHS NSW seems to be the biggest digitizer of NSW rail WTTs, possibly followed by Bob Taaffe. For ARHS, it is a commercial enterprise—they sell (or plan to sell) the product to rail fans in much the same way they have "marketed" other digitized "railway paper" such as curve and gradient diagrams or signal plans. This is something ATA could do for the paper timetables destined for the National Timetable collection.

What the customers are doing with these digitizations is unknown, but it seems unlikely that they would be printing them in bulk. There is, of course, a caveat that such products remain the intellectual property of their creators and should not be further manipulated or on-sold. This brings up the vexed question of whether paper copies of "commercially- digitized" TTs can, or ought to be, redigitized to produce a "new" digitized copy. This seems to be not only a kind of infringement of the intellectual property of the original digitizer, it also adds to image degradation and doubles an already mammoth task. In a peculiar legal case in the USA, the CIA used the difficulty of doing this as an excuse for denying a Freedom of Information request.

DIGITAL TIMETABLES

Preserving "Digital Timetables."

"Digital timetables " - that is to say timetables in electronic form (even as PDFs) are now mostly created on demand and are modified as often as daily. As I noted in an article in The Times of April 2018, the service providers nearly always provide them, but also farm them out to 3rd party suppliers, who often tweak them to cater to what they feel are the preferences of their customers. The timetable you download and read on your phone today could well look different from what your seat companion is seeing on their own app. Both may well be different tomorrow. A person would be mad to save each daily copy as it arrived on their screen. Should they desire to see how the information has changed from day-to-day, they can do no better than to access a site like Transit Feeds, now known as "Open Mobility Data". Even that site gave up the task as hopeless when the numbers and frequency of issue of GTFS TTs exploded stratospherically. Such *de novo* created timetables are 'precocial' like Plover chicks— "ready to fend for themselves"— indeed also, I might say, instantly ready to be embalmed in an Archive—the Wayback Machine, perhaps. Because they so often resemble paper printed timetables, and especially when the creator has no need or desire to print them, there can be the temptation to print them "privately" anyway. I am guilty of this—and I am not the only one.

On top of this are the "Metadata Problems" associated with such things. These include:

- Images or "data"?
- Storage Format (PDF, GTFS, XML, etc.)
- Storage medium?
- Accessibility?

Gleich has dealt with most of these problems, in the extract that starts on our page 4.

What follows is a summary of the scope of the preservation task, in the priority order enumerated on page 3. It will be no surprise to you to realise my knowledge of "rail stuff" outweighs every other type of stuff … but here goes!

RAIL

Rail Working/Employee TTs

For rail, at least, we can get an inkling of the scope of the task, especially for "Working" or "Employee" Timetables, because companies and administrators tended to preserve them. In the UK, the Railway Clearing House collected them all—and they still exist. In the USA, companies numbered them, and so an estimate of the numbers can be made. I estimate that the number of separated ETTs issued in North America is about 170,000. The number of **copies** for each issue was sometime printed on the cover and was generally in proportion to the number of employees who needed it—often in the thousands. Let us guess, then, that 100 ETTs were probably printed. Where are they now? Only 10,000 seem to have actually been sighted or cited by collectors and researchers.

In Australia we have pretty good figures— about 4,800 paper volumes appear to have been issued. I have — and one day ATA will inherit — 2,600 of them. Physically, I suppose, at least 1 million books might have been printed. It is possible that most "issues" have more than one tick against the first tick-box on page 5, and therefore do not need to be placed in yet another public archive—but we cannot be sure.

A complicating factor is the practice of making "Daily Train Plans" for tomorrow afresh every evening. These incorporate, for instance altered and additional trains, but—at least in the Hunter Valley—pick and choose from all the "paths" (and the length of those paths) afresh every evening. Are these things "collectable"? - are they even preserved by those who make them. If the answer to that question is "yes", then Sydney Trains may be producing a 600-page "paper-ready" SWTT every day. Imagine yourself printing those! This must surely be a case of "one has to draw the line somewhere". Even preserving the digital PDFs of them feels overwhelming, if not totally absurd.

Rail Public TTs

For public timetables, which were deliberately and (of necessity) ephemeral, neither total can even be guessed at. Few rail operators produce either WTTs or PTTs in paper format at all now. Sydney Trains, prints only a single copy of its suburban SWTT … lucky is the chap (he is an ATA member) who receives it … or is he? And, here we speak of timetables in the classical Bradshawnian format. They are clearly formatted to be printed onto paper and read "at leisure". ARTC seems never to have printed a paper WTT- I seem to be the only person who does so. Another ATA member sometimes has his London Underground WTTs printed for him. Woe betide the person who craves a complete set of Britain's Network Rail Working Timetable on paper — even with double-sided printing, it requires a stack of 80gsm paper just over two metres tall.

ROAD

Paul Keating once said of an opponent he was "all tip and no iceberg". This is a nice aphorism to contemplate in terms of "Road timetables". As with Rail, we would again make a split between "Local/Suburban" versus "Regional/Long Distance". For both of these most of the factors by which I have analysed for Rail, would surely apply to "Road". In Australia, at least, the road timetables produced by Government Authorities will have had and will continue to have a fair degree of design congruence with the Rail timetables for which they have had responsibility. For private operators or franchisees, it is a question like "how long is a piece of string?". This applies also to practically any aspect of "timetable making" which you might care to think about.

In NSW, there are over 6,300 separate bus timetable IDs listed in a recent GTFS timetable. In Sydney (at least) the situation of a fresh timetable every day is now a reality and can be seen on both the apps and in the PDFs which you might care to download (and save … surely not?).

We ought to, of course, consider not only passenger traffic, but also freight traffic. We know that road freight traffic on most continents runs to some sort of "Schedule", even if most of it is a "timetable" of the ABC type (end-point to endpoint). One only need to stand on an overpass of an Interstate Freeway to see THAT for yourself.

Such things, should they exist physically rather than electronically, are rarely if ever preserved. I know of one— produced for "Freight Forwarders" by NSW Dept. of Railways in 1961 [lower right, rear cover].

AIR

There are a number of organisations on the planet devoted to the collection and preservation of air timetables—see, for instance: https://www.timetableimages.com/ttimages/list.htm, which lists, via hyperlinks, 4005 airlines across the planet for which it has cover imagery. Of these, 307 are in "Oceania". The site has hyperlinks to 1434 airlines for which it has "complete timetables" - i.e. all internal pages, there being a total of 4534 timetables, an average of about 3.2 per airline. For Oceania, the corresponding numbers are 129, 305 and 2.4. These are (mostly) paper PTTs that have been scanned. Airlines also produce "WTTs" and there is at least one collector in Australia who collects the digital versions of Qantas WTTs. It is not clear to me whether the ATA/SLV has any of this. Air transport has its own "Bradshaws" too [lower left, rear cover].

WATER

For "Water" I think it would be useful to discriminate between
1. **"Seas and Oceans"** and
2. **"Rivers and Harbours".**

As with Airline TTs, there is a website for **(1)** ocean liners at http://www.timetableimages.com/maritime/images/archives.htm. This list is produced by the same person who produced the Airline lists summarised above (Björn Larsson).Therein one will find a list of 867 shipping lines that have produced all types of brochures. Listed on the site are 277 brochures which have at least some form of timetable (aka "Sailing Lists") therein.. In closed waters, **(2)** there can be (and are) timetables pretty much akin to those on dry land—nearly all of these are "public timetables", but Working Timetables (of a sort) also exist.

Comment on this article – Letter to the Editor

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Travelling to Adelaide on the 'Bull': *an express coach service in the 1960s by* STEVEN HABY

ONE OF THE TIMETABLES I received in a recent ATA auction was for Bull's Transport Service Adelaide to Melbourne service.

Bull's was a well-established coach operator based in Adelaide and was connected with the Lewis Brothers bus and coach service which operated route, school and charter services in Adelaide up until the early 1980s. Lewis also built a number of buses for themselves and other operators using panels from A. B. Denning, a Queensland bus and coach bodybuilder. The Bull's name was synonymous with operating a stage service between Adelaide and Alice Springs for some years in competition with the Commonwealth Railways (and later ANR) Ghan rail service.

This timetable as shown is undated but a number of clues can be obtained to ascertain a 'probable' date. Firstly the fare schedule on page 3 of the timetable (see figure 4) is pre-decimal- which places it prior to 14 February 1966 when our currency changed over. Out of interest, £3/0/0 for a one way fare between Adelaide and Melbourne say in the early 1960s would equate to around $82.00 today.

Another giveaway might be the six digit phone numbers shown on the last page of the timetable. I have not been able to find any definitive answer as to when Adelaide changed from a combination of letters and numbers but taking in to consideration the fare schedule this would have to have been pre-1966.

Finally, there is the photograph of a bus on the cover – a 1959 Leyland Royal Tiger Cub, with coachwork by Freighter Industries. The design of the coach is indicative of Freighter Industries designs of the early 1960s at best.

All that aside, let's turn to the actual timetable. If one was travelling from Adelaide you had an option of a day

Figure 1: Cover (right) and rear page (left) of Bull's Tourist Service timetable

service Wednesdays only or an overnight service on Fridays. The day service took around 13 hours and 30 minutes whereas the overnight service was 13 hours. There appeared to be a longer meal break at Ararat on the day service which may account for the extra running time.

Heading from Melbourne, it was an evening service departing at 1830 Fridays and Sundays arriving at the South Australian capital at 0700 the next morning … 13 hours and 30 minutes, including breaks at Ballarat, Bordertown and Murray Bridge. The timetable is shown on our page 9.

Compared to 2020 the only coach service (albeit suspended due to COVID-19) is Firefly's twice daily Melbourne – Adelaide service. An extract of the timetable appears on our page 10, for comparison. Taking into consideration today's traffic conditions, increased speed of coaches, various diversions of the Western Highway and so on, today's journey is around 90 minutes quicker. Note that there are no scheduled stops beyond Horsham presumably due to travel restrictions associated with

competing V/Line services.

On examination of the timetable, the service is somewhat unbalanced and would require two coaches to maintain the service, particularly on the Adelaide to Melbourne service on the assumptions that:

- The 2100 arrival Wednesdays forms the Friday evening service; and
- The 0730 arrival Fridays forms the Sunday evening service back to Adelaide.

The timetable leaflet measures 29cm x 22.5cm folding to 14.5cm x 22.5cm and is printed on glossy paper. Apart from the obvious lack of a date, it represents an interesting time in inter-state coach travel when the only real competition was rail and before the onslaught of cheap airfares.

[Editor's note: I lived in Bacchus Marsh at the time of this timetable and sometimes saw the evening Bull service stopped outside the post office or Oliver's Newsagency, in the centre of town. This was a different spot to where the Firefly service stops these days.]

MELBOURNE—Carlyons Hotel, 140 Spencer Street

DEPARTURES: ADELAIDE — Wednesday 7.30 a.m.
Friday 6.30 p.m.
MELBOURNE—Friday 6.30 p.m.
Sunday 6.30 p.m.

ADELAIDE—MELBOURNE

	Wednesday	Friday			
Depart	7.30 a.m.	6.30 p.m.	Adelaide	7.00 a.m.	**Arrive**
	8.00 a.m.	7.00 p.m.	Crafers	6.25 a.m.	
	8.30 a.m.	7.30 p.m.	Nairne	5.55 a.m.	
	9.30 a.m.*	8.30 p.m.*	Murray Bridge	5.15 a.m.*	
	9.55 a.m.	8.55 p.m.	Tailem Bend	4.15 a.m.	
	10.55 a.m.	9.55 p.m.	Coonalpyn	3.15 a.m.	
	11.15 a.m.	10.15 p.m.	Tintinara	2.55 a.m.	
	11.45 a.m.	10.45 p.m.	Keith	2.25 a.m.	
	1.05 p.m.*	12.05 a.m.*	Bordertown	1.00 a.m.*	
	2.05 p.m.	1.05 a.m.	Kaniva	1.00 a.m.	
	2.35 p.m.	1.35 a.m.	Nhill	12.30 a.m.	
	3.05 p.m.	2.05 a.m.	Dimboola	12.00 p.m.	
	3.35 p.m.	2.35 a.m.	Horsham	11.25 p.m.	
	4.30 p.m.	3.30 a.m.	Stawell	10.30 p.m.	
	5.00 p.m.	4.00 a.m.	Great Western	10.15 p.m.	
	5.45 p.m.*	4.15 a.m.*	Ararat	10.00 p.m.	
	6.20 p.m.	4.50 a.m.	Beaufort	9.25 p.m.	
	7.15 p.m.	5.35 a.m.	Ballarat	8.45 p.m.*	
	8.10 p.m.	6.40 a.m.	Bacchus Marsh	7.20 p.m.	
Arrive	9.00 p.m.	7.30 a.m.	Melbourne	6.30 p.m.	**Depart**

READ DOWN

READ UP

MELBOURNE—ADELAIDE
Friday and Sunday

* Denotes Meal Break

Figure 2: Bull's Tourist Service timetable

Stop Name	Stop Address		FE71	FE81
ADELAIDE CBD	CENT BUS STAT 85 FRANKLIN ST	Map	06:50	20:15
CRAFERS *	BP SERVICE STATION -EAST BOUND	Map	07:15	20:30
MT BARKER *	BUS STOP 62 - WEST SIDE	Map	07:30	20:55
MURRAY BRIDGE *	INFORMATION CENTRE SOUTH TCE	Map	08:00	21:20
TAILEM BEND *	SHELL ROADHOUSE	Map	08:20	21:40
TINTINARA (BREAK)	UNITED ROADHOUSE	Map	10:05	23:05
KEITH *	COMFORT STATION DUKES HWY	Map	10:30	23:30
BORDERTOWN *	OPP SWEETIES BAKERY	Map	11:00	23:55
KANIVA *	KANIVA COMMUNITY ROADHOUSE	Map	12:00	00:55
NHILL *	INFORMATION CENTRE - MAIN ST	Map	12:30	01:20
DIMBOOLA *	LOCHIEL ST CORNER OF LLOYD ST	Map	12:55	01:50
HORSHAM *	HORSHAM COACH TER. ROBERTS AVE	Map	13:35	02:20
STAWELL *	BP SERVO WESTERN HWY	Map	N/A	03:05
ARARAT *	ARARAT RAILWAY STATION	Map	N/A	03:20
TARARA ROADHOUSE (MEAL BREAK)	TARARA ROADHOUSE	Map	N/A	04:00
BEAUFORT *	CALTEX ROADHOUSE	Map	N/A	04:25
BALLARAT *	RAILWAY STATION LYDIARD STREET	Map	N/A	05:05
BACCHUS MARSH *	BUS STOP CNR GISBORNE & BM RDS	Map	N/A	05:35
MELTON *	HIGH STREET (NEAR ALDI)	Map	N/A	05:50
DEER PARK *	CNR STATION & BALLARAT ROAD	Map	N/A	06:05
MELBOURNE CBD	SOUTHERN CROSS COACH TERMINAL	Map	19:05	06:35

Figure 3: Extract of Firefly Express timetable

BULL'S TOURIST SERVICE — FARE SCHEDULE

MELBOURNE ADELAIDE		Melbourne			Ballarat			Ararat			Stawell			Horsham			Dimboola			Nhill			Kaniva		
BORDERTOWN	S.	£2	15	0	£2	15	0	£2	10	0	£2	5	0	£2	0	0	£1	15	0	£1	7	6	£1	0	0
	R.	4	10	0	4	10	0	4	5	0	4	0	0	3	10	0	3	0	0	2	10	0	1	15	0
KEITH	S.	2	15	0	2	15	0	2	10	0	2	5	0	2	0	0	1	15	0	1	10	0	1	0	0
	R.	4	10	0	4	10	0	4	5	0	4	0	0	3	10	0	3	0	0	2	10	0	1	15	0
TINTINARA	S.	2	15	0	2	15	0	2	10	0	2	5	0	2	0	0	1	15	0	1	15	0	1	10	0
	R.	4	15	0	4	15	0	4	5	0	4	0	0	3	10	0	3	0	0	3	0	0	2	15	0
COONALPYN	S.	2	15	0	2	15	0	2	10	0	2	5	0	2	0	0	1	15	0	1	15	0	1	10	0
	R.	4	15	0	4	15	0	4	10	0	4	5	0	3	15	0	3	10	0	3	5	0	3	0	0
TAILEM BEND	S.	2	17	6	2	17	6	2	15	0	2	10	0	2	7	6	2	5	0	2	0	0	1	15	0
	R.	5	10	0	5	10	0	4	15	0	4	10	0	4	5	0	4	0	0	3	15	0	3	10	0
MURRAY BRIDGE	S.	3	0	0	3	0	0	2	17	6	2	15	0	2	15	0	2	10	0	2	10	0	2	0	0
	R.	5	10	0	5	10	0	5	0	0	4	15	0	4	10	0	4	7	6	4	5	0	4	0	0
NAIRNE	S.	3	0	0	3	0	0	3	0	0	2	17	6	2	17	6	2	15	0	2	10	0	2	7	6
	R.	5	10	0	5	10	0	5	10	0	5	5	0	5	5	0	5	0	0	4	12	6	4	5	0
CRAFERS	S.	3	0	0	3	0	0	3	0	0	2	17	6	2	17	6	2	15	0	2	10	0	2	7	6
	R.	5	10	0	5	10	0	5	10	0	5	5	0	5	5	0	5	0	0	4	12	6	4	5	0
ADELAIDE	S.	3	0	0	3	0	0	3	0	0	2	17	6	2	17	6	2	15	0	2	10	0	2	7	6
	R.	5	10	0	5	10	0	5	10	0	5	5	0	5	5	0	5	0	0	4	12	6	4	5	0

PLEASE NOTE
Children aged 4-14 years, **Half** Adult Fare.   Children under 4 No Charge provided seat not occupied.
The above schedule applies to both Evening and Daylight Services.
Itineraries and Fare Schedule subject to alteration without notice.

Figure 4: Fare Schedule

Comment on this article – Letter to the Editor   Return to Contents Page

Literary Corner—"He knew he was right"

Brendan Whyte

Anthony Trollope's lengthy psychological/pathological novel "He Knew He Was Right" (1869) contains an interesting product-placement for Bradshaw's Guide in chapter 93 'Four o'clock in the morning':

The Bradshaw was had out and consulted, and nearly half an hour was spent in poring over that wondrous volume. It is the fashion to abuse Bradshaw,—we speak now especially of Bradshaw the Continental,—because all the minutest details of the autumn tour, just as the tourist thinks that it may be made, cannot be made patent to him at once without close research amidst crowded figures. After much experience we make bold to say that Bradshaw knows more, and will divulge more in a quarter of an hour, of the properest mode of getting from any city in Europe to any other city more than fifty miles distant, than can be learned in that first city in a single morning with the aid of a courier, a carriage, a pair of horses, and all the temper that any ordinary tourist possesses. The Bradshaw was had out, and it was at last discovered that nothing could be gained in the journey from London to Siena by starting in the morning. Intending as he did to travel through without sleeping on the road, Stanbury could not do better than leave London by the night mail train, and this he determined to do.

Anthony Trollope
He Knew He Was Right

OXFORD WORLD'S CLASSICS
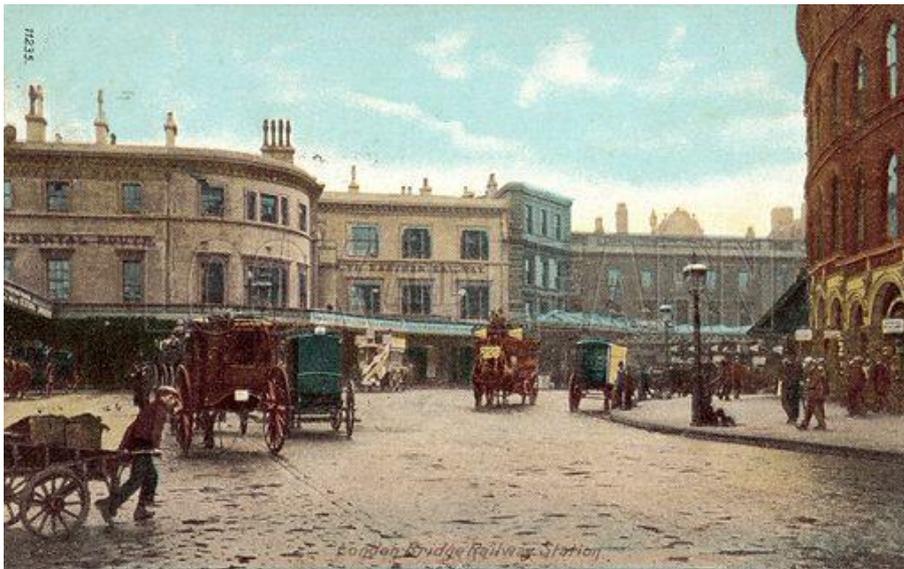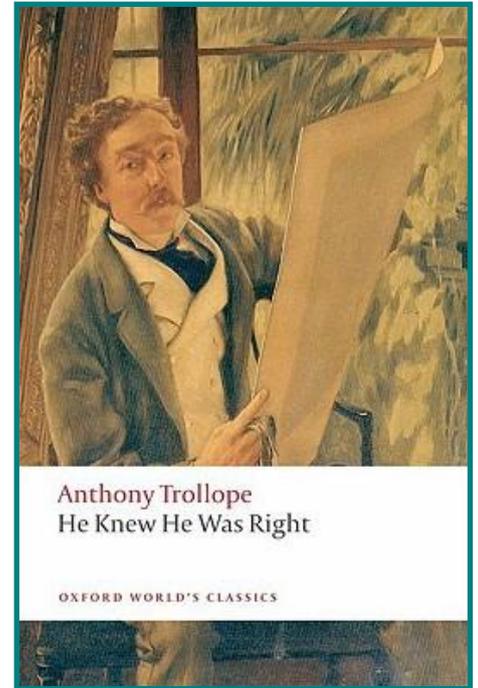
Notes by Geoff Lambert

The Ian Brady Collection of Bradshaws does not have a Continental Bradshaw of this period, but it DOES have a copy of the November 1870 issue of Bradshaw's Guide which shows the train which Stanbury ("a newspaper man") would have caught from London. This was the 8:35 PM South Eastern Railway 1st-class Mail Train, which arrived in Dover at about 10:40 or 10:45 PM (depending on which page of Bradshaw one consults), where it connected with a Ferry to Calais, which was reached at 12:30 AM. The timetable for this train appears on the second-last column of the Bradshaw extract on page 13.

Thereafter, the path taken by Mr. Stanbury to Siena—which was in Tuscany, not too far from Florence ("Firenze")—is obscure.

It was probably something like this:

- Calais—Paris;
- Paris—Lyons;
- Lyons—Modane (including Mt Cenis Summit Railway opened in 1868, a line that used the Fell system);
- Modane—Susa—Turin—Milan-Bologna-Florence (connection time of 4 to 5 hours here);
- Florence—Empoli—Siena.

In the book, Trollope has Mr. Stanbury making the journey *"without pause or hindrance"*, as far as Florence, where he was obliged to wait "four or five hours" to catch a train to Siena. This enabled him to make a quick visit to another important character in the novel.

By the early 1860s, most of a 1400-mile rail connection between Calais and Brindisi had been built, much of it
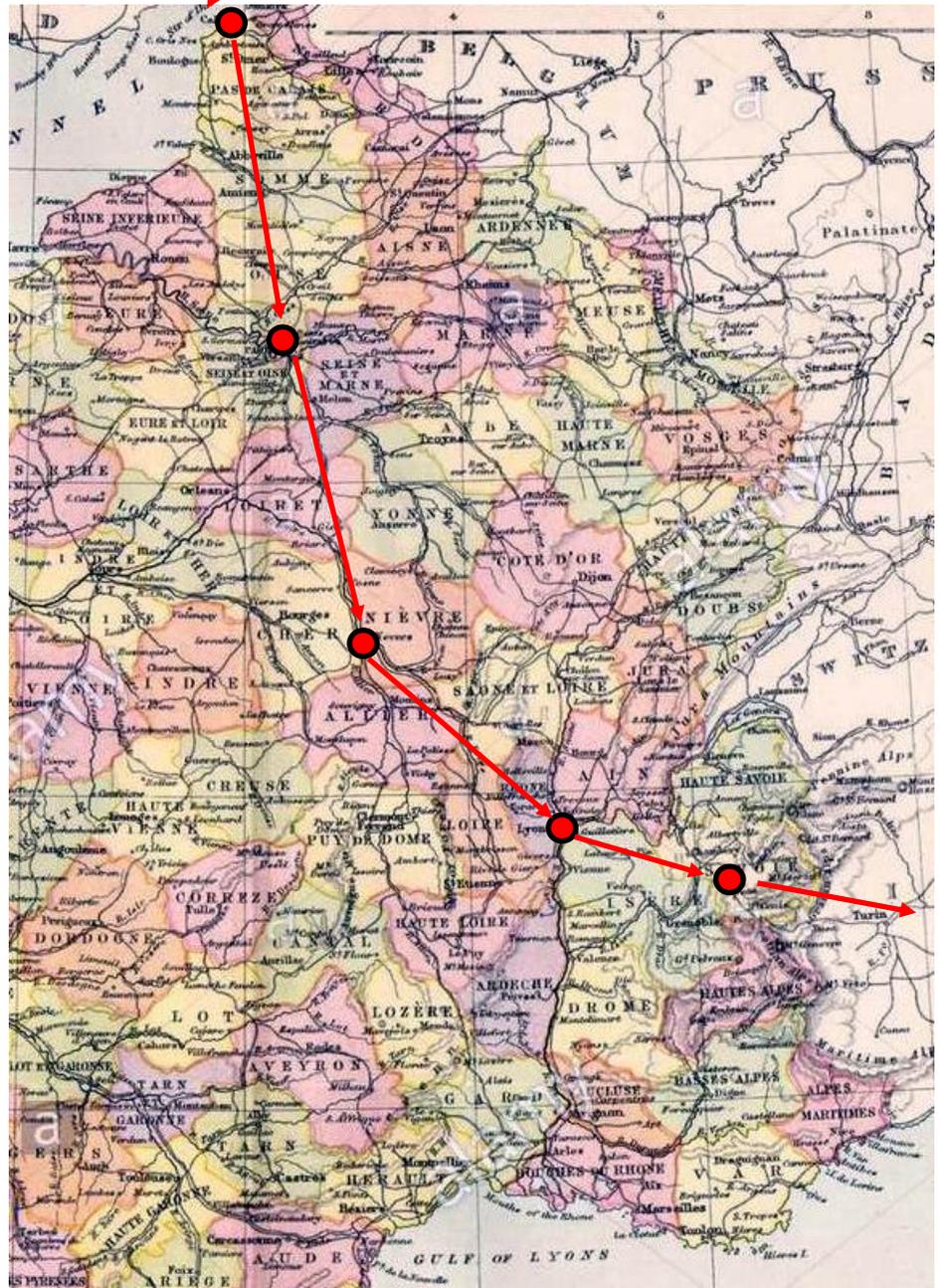
by Thomas Brassey and John Barraclough Fell. The only major remaining problem was the crossing of the Alps. Work on the Fréjus or Mont Cenis tunnel had started in 1857 but it looked as though it would take many

years to build, using traditional tools and gunpowder. A full rail service from Calais to Brindisi, continuing by sea to Alexandria, would take about 30 hours off the journey time from Britain to India, China and

LONDON, CROYDON, READING, HASTINGS, MAIDSTONE, CANTERBURY, MARGATE, FOLKESTONE, and DOVER.—S.E.

Offices.—London Bridge Terminus, S E   Gen. Man., C. W. Eborall   Supt., W Cockburn   Treas., T. A. Chubb.   Sec., John Shaw.   Eng., Francis Brady

South Eastern.

[London, Reading, Hastings,

Margate, Folkestone, and Dover.]

[Deal, Ramsgate, and Margate.

Trains & Fares, see page 68																										
Charing Cross (West E.)																										
Waterloo Junction																										
Cannon Street (City)																										
London Bridge																										

Spa Rd & Bermond-
New Cross
Chislehurst, fr Bickley Park
Orpington
Chelsfield [Riverhead
Dunton Green and
Sevenoaks
Hildenbro'
Tunbridge Junc arr

Croydon
Caterham Junction
Caterham Junc dep
Kenley
Warlingham
Caterham arr
Merstham
Red Hill Junc. arr
Red Hill J. dep
Reigate Town
Betchworth
Box Hill
Dorking
Gomshall & Sheree
Chilworth & Albury
Shalford, Godalming
Guildford
Ash
Aldershot Camp.
Farnboro'
Blackwater
Wellington College
Wokingham
Earley
Reading

Red Hill Junction...dep
Godstone
Edenbridge
Penshurst
Tunbridge Junc. arr

Tunbridge Junc.
Tunbridge Wells
Frant
Wadhurst
Ticehurst Road
Etchingham
Robertsbridge
Battle
St. Leonards
Hastings arr

Tunbridge Junc.
Paddock Wood Jnc arr

Paddock Wood J.d
Yalding
Wateringbury
East Farleigh
Maidstone arr
Paddock Wood Jn. dep
Marden
Staplehurst
Headcorn
Pluckley
Ashford Junction arr
Ashford Junc...dep
Ham Street
Appledore
Rye
Winchelsea
Hastings arr
Ashford Junc .dep
Wye
Chilham
Chartham
Canterbury
Whitstable H.
Sturry, for Herne B.
Grove Ferry
Minster Junction
Minster Junc, dep
Sandwich
Deal, for Walmer
St. Lawrence Junc.
Ramsgate
Margate arr
Ashford Junction.dep
Smeeth
Westenhanger & Hythe
Shorncliffe & Sandgate
Folkestone Junction
Folkestone Harbr. arr
Dover {Town
{Admiralty Pier

DEAL, SANDWICH, MINSTER JUNC. RAMSGATE, & MARGATE —S. E

All 1,2,3 class

	mrn	mrn	mrn	aft	aft	aft	aft
Deal ...dep	7 50	9 45	1050	1250	3 56	0	8 30
Sandwich	7 59	9 54	1059	1259	3 56	8 39	
Minster Junction	8 10	1011	1110	1222	3 36	6 25	8 55
St. Lawrence				1232	3 46	6 35	9
Ramsgate ...arr		1025		1237	3 54	6 40	9 10
Margate			1050	1250	4 05	9 25	

	mrn	mrn	mrn	aft	aft	aft	aft
Margate ...dep	8 0		1050	3 5		9 30	
Ramsgate	8 5		11 5	3 20	6 50	9 45	
St. Lawrence	8 8		11 8	3 26	6 59	9 48	
Minster Junction	8 24	1015	1122	1234	3 42	7 12	1010
Sandwich	8 34	1025	1132	1234	3 52	7 22	1020
Deal ...arr	8 46	1037	1144	1246	4 47	7 34	1032

CANTERBURY and WHITSTABLE HARBOUR.—South Eastern.

Canterbury to Whitstable at 7 15 and 9 45 mrn.; 3 15 and 7 20 aft.

Whitstable to Canterbury at 7 40 and 11 30 mrn.; 3 45 and 7 40 aft.

No Sunday Trains. ☞ All 1&2 class.

Time on journey, 15 minutes.

FARES—1st class, 1s.; 2nd class, 6d.   RETURN TICKETS.—1s. 6d.; 9d.

Australasia compared with the then current option of Calais to Marseilles by rail and onwards by sea. The increasing volumes of trade, in mail, passengers and goods, presented a tempting prospect of profits to be made by crossing the Alpine barrier as well as an opportunity to strengthen the ties of Empire. In 1866, at a British Association meeting, Fell reported how four years earlier he had been asked to design some means of improving on the existing horse-drawn transport across the Alps over the Mont Cenis Pass. The slopes and curves were too much for a conventional train and so far no such railway had been built anywhere but Fell managed to design a suitable system which had a middle rail and he patented it. He set a maximum gradient of 1 in 12 (8.3%) and a minimum curve of 2 chains (40 m). The French and Italian governments had agreed to the idea subject to satisfactory testing. The detailed design was carried out by A. Alexander at Brassey Jackson Betts & Co.'s Canada Works in Birkenhead. The gauge was 1,100 mm (3 ft 7 5⁄16 in).

This was the line over which Stanbury would have travelled. Trollope may, or may not, have known of this when he wrote the book. Had he written the book three years later, then Stanbury would probably not have had such a long wait at Florence and therefore an important plot device would have failed.

The Fell system, by the way, was used for the famous Rimutaka Incline in New Zealand (The Times, July 2005).

Comment on this article – Letter to the Editor

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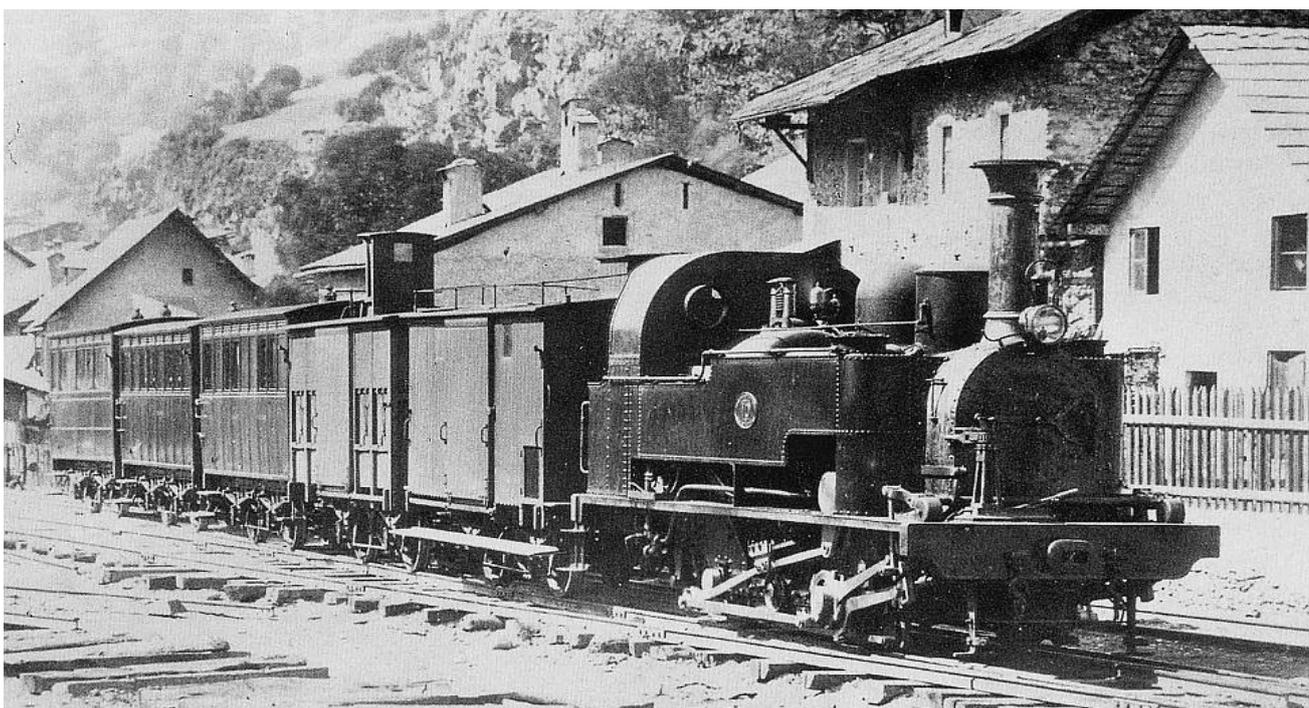
Tanya's Quiz #2

1. What was the construction name of the Sydney station of Museum?

2. As I live in Melbourne, it took me 40 years to travel in ordinary public trains on all 15 sides of the present day (2021) five Brisbane triangles where all sides are running lines. Some sides have had a very limited passenger service over the years. Where in suburban Brisbane are these five triangles located? [Triangles that were simply used to turn locomotives, etc., don't count. These are known as fork lines in QR-speak.]

3. What is unusual and unexpected about the geographical relationship between Goulburn and Cootamundra stations in NSW?

4. What is the present (2021) name of the Adelaide suburban station that opened as North Brighton on 12th January 1914, was renamed Middle Brighton on 20th April 1914 and received its current name on 7th June 1920?? [Hint: it isn't South Brighton which was closed on 2nd January 1976.]

5. Although VR took over the Koondrook Tramway from the Kerang Shire Council on 1st February 1952, 1st class travel between Kerang and Koondrook wasn't available until about February 1958 – why not?

6. What are the most recent names of the Melbourne suburban stations Barkers Road, Langridge Street, Nicholson Street and Raglan Street? All are either now closed or no longer served by trains.

Answers to Tanya's Quiz #1

1. WAGR's Nornalup Branch – Cold and Wet was one of the minor stations between the junction at Elleker (just west of Albany) and Denmark, the only real town on the line.

2. Belmont.Rail: Brisbane (the Belmont Tramway was a railway owned by the Belmont Shire Council, then by the Brisbane City Council and later QR – its junction was Norman Park); Newcastle (owned by the New Redhead Estate and Coal Company but worked by the government – junction was Adamstown); Perth (branch from Bayswater which served the Belmont Racecourse/Ascot Racecourse but shown as Perth Racecourse on race tickets so WAGR could charge higher fares on racedays than if it were called Belmont (by which name the station was known when there were no races!)). Tram: Brisbane (although technically not located in Belmont but in Carina); Geelong – the only tram line that crossed the Barwon River [Paul Brown got this right].

3. The previous name for the station (closed with the line in 1956) at the Barry Road level crossing was North Campbellfield but this name was too long to fit in the destination apertures on the electric trains introduced with the reopening in 1959 so some bright spark in VR suggested that it's 'up' north and that there were plenty of 'fields' at the time. Another good idea would have been 'Northfield' but it was already in use in Adelaide. [Wouldn't have been a problem in Sydney!]

4. Darling, Eastmalvern (when it was still a single word name), Holmesglen and Jordanville. [Aside: 'Eastmalvern' as a name reads OK but what about 'Eastoakleigh' (nowadays Huntingdale) where you tend to read the syllable break being between the s and the t.]

5. The Elwood Depot on the St. Kilda railway station to Brighton Beach electric street railway (i.e. electric tramway) was destroyed by fire on the morning of 7th March 1907, along with almost all the cars. VR's 6 unused Chelmsford kerosene fired buses provided a limited service from St. Kilda to Middle Brighton from the 9th March until 16th March 1907, by which time replacement trams had arrived from Sydney. The salvaged 5ft 3in undergear was placed under the Sydney car bodies. [The Chelmsford buses had operated from Prahran station to Malvern Town Hall along High Street from 1st December 1905 until 17th June 1906 when they were withdrawn due to their unreliability.]

6. Ashfield to Guildford
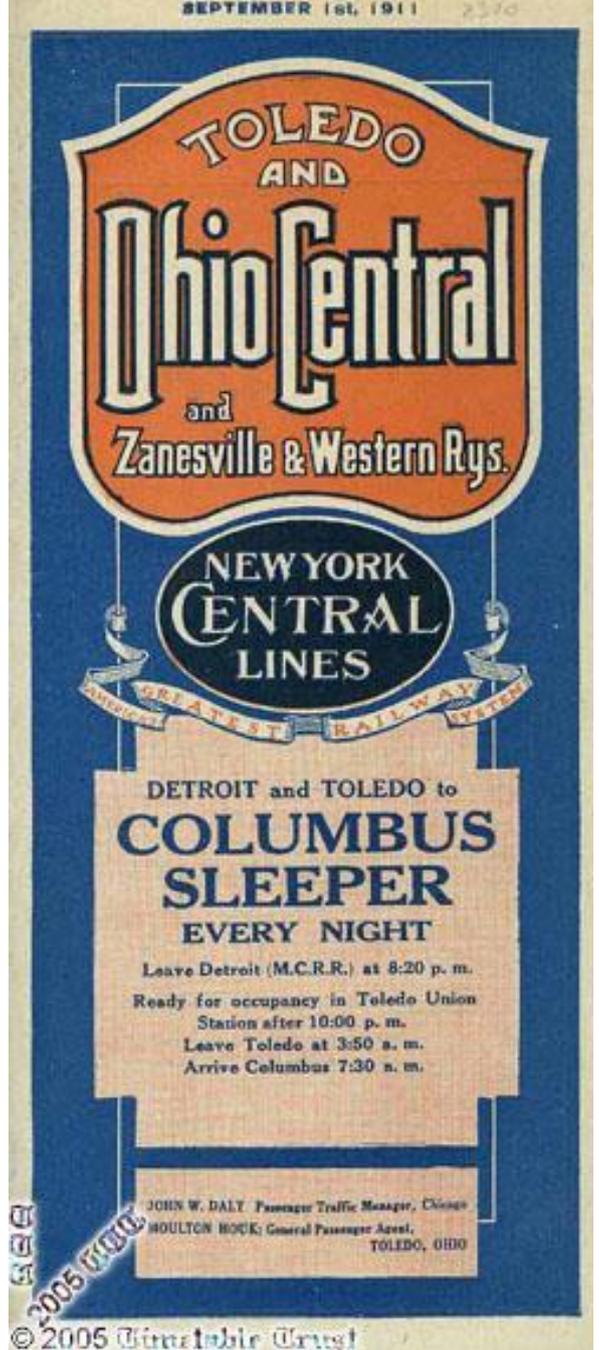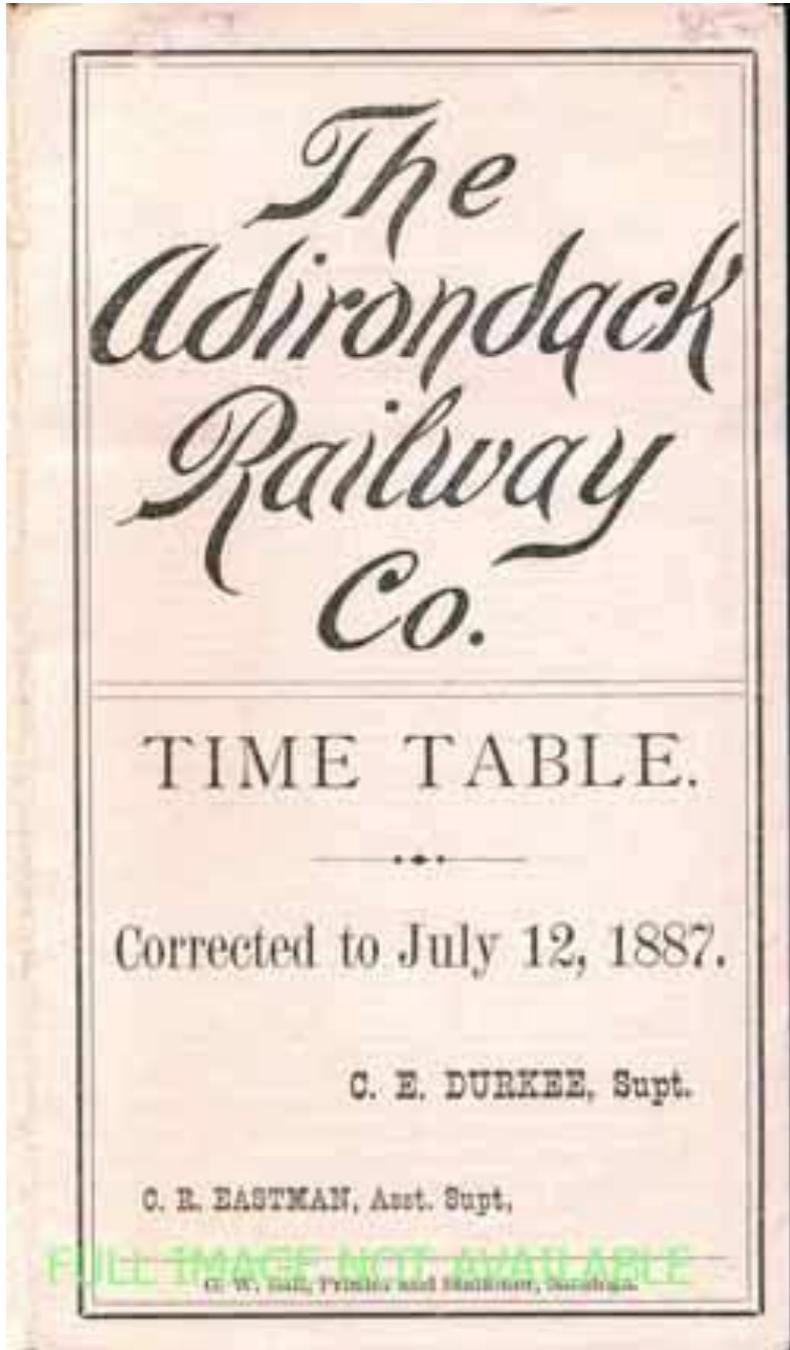
The A to Z of North American Railroad Public Timetables