ROADS AND ROAD TRANSPORT

HISTORY CONFERENCE NEWSLETTER

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NOTICE TO MEMBERS DATA PROTECTION ACT

The Roads and Road Transport History Conference proposes to hold its membership records on computer. If you object to your own name, address (and telephone number and interests, if you have given these) being held on computer, please advise the Hon. Treasurer, Roger Atkinson, 45 Dee Banks, Chester CH3 5UU (tel: 01244 351066)

This edition of the Newsletter will be distributed by post in December, together with renewal notices for the Year 1997. Please renew promptly!

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Documenting Documents

Our last meeting in September heard a talk about the difficulties found in researching London Transport....much of the material was filed under misleading headings. Archivists will tell you that their job is not to catalogue and index, but to preserve, and they often literally do not know what it is that they have, even though they are also called upon to accept or reject material when it first comes to them.

Peter Bancroft has set about the task of publishing the location of many archive documents relating to London Transport. Should we as a Society perhaps think of trying to create a guide to the various archives with road transport material in them? This could perhaps form the basis of an Occasional Paper.

Occasional Paper Number 1 will without fail appear in the New Year. The delay over this publication has been caused by the need to "get it right" in several respects, and by the arrival on the Editor's desk of several new facts that have to be incorporated at a late stage.

Conference Matters

Report of the Tenth Business Meeting, held at the Museum of British Road Transport, Coventry, on 21st September 1996

The Chairman opened the proceedings by taking up an item arising from the previous meeting: the disbandment of the North British Traction Group, a founding member of the Conference. There had been some correspondence between us and the NBTG with regard to the present whereabouts of the records held by the Group, which led to further correspondence on the matter of Scottish records in general. Please see lan Yearsley's item on page 3.

Colloquium Outcome

The Chairman then spoke of the Colloquium held in June, and it was the general opinion of those present that the event had been a success. Professor John Armstong then outlined what he saw to be a possible outcome - a multi-authored book which would include the chronology, history, commercial and technical development of the road freight industry, with possible references to the development of roads and their surfaces, legislation, and the effects of outside influences. He thought that we collectively know of suitable authors, and suggested that an editorial team, perhaps a steering committee, be formed. There was a need to keep to a time frame. He wondered whether a "dictionary" format, or a chapter (topic) format might be the best.

Ian Yearsley raised the problem of the targetting of the book, was it to be aimed at an academic, an enthusiast, or a popular market? Ian also drew attention to one particular outside influence affectiong the road transport industry, that of the changes in land use of the last decade, which has seen the rezoning of warehousing, manufacturing, and retailing activity. John Birks questioned whether we should not make use of the specialist institutes, who might provide expertise or even some sponsorship. Other speakers pointed out the need to strike a balance between the "photos with captions" approach, and an academic book, and that we should go for a "history book" and not a "nostalgia book".

Ian Yearsley pointed out that we could choose the option of two separate volumes to suit the different markets. Gordon Mustoe and others mentioned the possibility of producing "part works", or even an "annual" over a number of years.. It was thought to be an immense task to pack everything into one volume, and several speakers warned against producing a book so large that all the entries were subject to too much editing.

The discussion concluded with some decisions (given general assent) that Professor John Armstrong

should try to convene a steering committee. (Gordon Mustoe, Grahame Boyes, L. Gordon-Reed present at the meeting agreed to take part, and it was also agreed that John Aldridge be invited to join) Richard Storey urged that a target date be set, and offered a venue for a possible meeting of those involved. It is expected that some decisions will be presented to the next Business Meeting of the Conference.

1997 Symposium

Following some discussion by the Standing Committee, it was felt that we should go ahead with a Symposium on the subject of road freight transport. Ron Phillips had suggested a venue in Staffordshire, this being a good central location, and the meeting agreed that 18th October 1997 would be a suitable date. A general title "Carrying the Loads" was adopted, and it was promised that firm details of the venue, the date, and possible cost would appear early in 1997. The matter of speakers was also discussed, and members will approach potential candidates.

Transport Archives

Item 4 of the agenda of the day was that a list of transport archives (with some indication of their contents) was an essential tool that all of us would find useful. Our attention was drawn to an official body, the Royal Commission of Historical Manuscripts, to which archivists are expected to send a catalogue of the items in their care. However, in the light of the afternoon's presentation by Peter Bancroft, it seems that the subject of archives requires further discussion and possibly further action by Conference.

Newsletter & Occasional Paper

Newsletter 11 was distributed to all present. It was regretted that Occasional Paper No.1 was not available on the day (as advertised): the delay was due to the need to have this item specially printed to be available to non-members at a commercial price.

1997 AGM & 11th Business Meeting

The date and venue for this were discussed, and fixed for 15th February 1997, at the Museum of British Road Transport, Coventry.

Presentations

Before lunch, Paul Byers spoke to the meeting on "Using the Internet". The afternoon session was taken up by Peter Bancroft's talk entitled "The Records of London Transport and its Predecessors". Paul spread his net worldwide and amazed us with its complexity, but Peter followed with an equally complex explanation of the way to find archive material on London Transport. Once again he highlighted the problem found with many archives: that the indices are very often misleading, for example, much material concerning road transport in London is filed under "Rail". Peter's task has been to create an index of his own in book form.

Archives in Scotland

Some notes from Ian Yearsley Research Co-ordinator

Information has been supplied by the Business Archives council of Scotland about the archives of Western Scottish (Western SMT) and its constituent companies. Some of these records are held at what was the Strathclyde Regional Archive. Shortly the new South Ayrshire Archive will replace that system, but meanwhile material is being deposited with BAC.

The material includes the following companies:
Rothesay Tramways
Greenock & Port Glasgow Tramways
Scottish General Transport
Caledonian Omnibuses
Greenock Motor Services
Port Glasgow Motor Company
Arran Trans[port & Trading Company
Wm Currie (Transport) Limited.

BAC's collection also includes many records of Scottish railway companies under file UGD8.

The Business Archives Council of Scotland is at the Business Records Centre, The University, 13 Thurso Street, Glasgow G11 6PE. Contact is Jacqui M. Seargeant, Surveying Officer. (Phone 0141 339 8855 ext 6079)

There is still doubt about the whereabouts of some Scottish transport records, and anyone with knowledge, particularly of the smaller and local archives, is invited to write to Professor John Hibbs with details.

The National Tramway Museum at Crich is now in process of transferring its collection of negatives of tramcar, tramway and street scenes to digital records. This is a major task involving many thousands of negatives by photographers including R.B.Parr, M.J.O'Connor, H.B.Priestley, W.A.Camwell andf J.H.Price. When eventually it is completed these images will be more readily accessible than at present. Meanwhile any enquiries should be addressed to Glyn Wilton, Photographic Archivist, National Tramway Museum, Crich, Derbyshire, DE4 5DP. (Phone 01773 852565).

JOINT DIFFICULTIES

The days of joint bus service are long past, but nobody has yet taken up the subject of looking at the numerous problems they presented. The document overleaf is concerned with the ticketing and fare policy of a new joint service between adjacent towns. Two "end-on" routes were to be merged into a through joint service, with the fares taken to be pooled and divided in correct proportion. That was the normal practice, but this particular route only operated in the afternoon and evening (it commenced 3.00pm), and was so infrequent that only one vehicle was needed. It was impractical for the operation to be split on a monthly basis as was done on some joint routes, so one operator had to bear all the wear and tear on vehicles, and deal with the financial aspects. In this case Widnes did the work, and St. Helens took the money, with the exception that St. Helens might occasionally have to deal with a Widnes return ticket.

One wonders if the whole thing was worthwhile in this case. The route was restricted to p.m. only because of objections from the LMS, who ran a few desultory trains in the earlier part of the day. The route was restricted by low-bridges, and was worked by a single deck Leyland Lion bus, which, when the wartime came, retained its forward facing seats whilst its stablemates were converted to perimeter seating. As traffic increased, some lowbridge utility double deckers were added to the fleet for this service. Widnes kept the complex accounting system going throughout the war, probably because it only involved one or two weekday shifts, and probably one clerk could cope with that and the checking in of ordinary takings, but Crosville, forced to issue special tickets inside Widnes where routes clashed with those of the Corporation, called in 1943 for a new arrangement. Instead of using valuable clerical time for dealing with special tickets, the Company agreed to pay Widnes Corpration an annual sum, based on traffic over the previous three years. This sum did not vary, and was not changed until declining traffic forced Crosville to seek a renegotiation, but there was certainly sense in the single annual payment arrangement in 1943, and one wonders if such agreements could not have been adapted in some cases of joint services, particularly of the less complex sort.

Can anybody put forward details of the route which could qualify for the award of "The Most Complicated Joint Service of All Time". I suspect it would be in Lancashire or somewhere close in the north west.

JOINT (ST. HELENS CORPORATION TRANSPORT DEPARTMENT SERVICE (WIDNES CORPORATION MOTOR OMNIBUS DEPARTMENT

THROUGH SERVICE BETWEEN WIDNES AND ST. HELENS COMMENCES ON THURSDAY 5th APRIL 1934

INSTRUCTIONS FOR CONDUCTORS

PROCEDURE REGARDING TICKETS

HOW ST.HELENS CONDUCTORS SHOULD DEAL WITH TICKETS ISSUED BY WIDNES CORPORATION

Return tickets issued by Widnes Corporation are not dated and have a small portion at the top of the ticket bearing the same number as the ticket, and when a passenger presents one of these tickets the St.Helens conductor is to remove the top portion and retain it thereby preventing the ticket from being used for a further journey, returning the large portion to the passenger after punching it on the opposite side of the ticket to that which has already been punched by the issuing conductor. The punch hole made by the St.Helens conductor is to be in the stage at which the passenger is entitled to board. The passenger, therefore, should alight at the stage which had been originally punched.

The small portion of ticket retained by the conductor is to be paid in to the cashier.

Specimins of tickets issued by Widnes Corporation are shown in the Locker Room at Hall St, but the tickets to be used on the through service will have stage numbers on instead of the place names, the stage numbers corresponding with those already in use on the St.Helens and Sutton Manor routes.

HOW WIDNES CONDUCTORS SHOULD DEAL WITH TICKETS ISSUED BY ST. HELENS CORPORATION

Return tickets issued by St.Helens Corporation do not have a small portion at the top the same as the Widnes Corporation tickets, and when a passenger presents a return ticket issued by St.Helens Corporation, the Widnes conductor is to puinch it in the cancelling section according to the time boarded, and retain the ticket, and for every such ticket retained by the conductor, an exchange ticket is to be given to the passenger punched in the value of the return ticket collected. The return tickets so collected are to be paid in to the cashier at Widnes at the end of the day.

The document illustrated above tells us a lot. Firstly, that punch tickets with stage names were still in use at Widnes in April 1934, and that tickets with numbered stages were introduced at this time. The St. Helens conductors were obliged to hand in the torn off portion of Widnes return tickets for accountancy reasons, for the joint service was worked by Widnes buses only, and the value of such tickets (valid on other St. Helens buses covering the St. Helens section of the service) would require making up from the joint service receipts.

Widnes conductors had to cancel the St. Helens return tickets and issue an exchange ticket; clearly one of the tickets was cancelled by hand nippers, or if the punch was used, the cashier would need to make an adjustment when calculating passenger figures, and also he had to add the value of such tickets to the Widnes receipts.

Viewing the body

The reviewer of a recent book on the subject of transport spoke in praise of modern typography, and of how a text, previously published some years ago and now re-issued, had been immensly improved by modern layout and enhanced illustration. These comments were true, the text had been much enhanced, allowing the reader a greater comprehension of the subject matter. The same can be said of cinema film, whose quality can now be greatly upgraded by technology. But such changes are made to a secondary source, and this item is written to discuss how we should reproduce a primary source to the best effect.

Most publishers would be reluctant to reproduce a manuscript item without a printed text alongside. It is a fact that in 1996 we are seeing less and less manuscript in our daily lives, and children at school are making less use of the written word, and moving to the keyboard and the electro-mechanically produced text. However, the Domesday Book, set in 11 point Times New Roman, would be less useful to scholars, although many would welcome an easy to read version as an aid to study the original.

To put it another way, Inspector Cluedo would always prefer to examine the body as it lay prone in the Library, clothing awry and face distorted, but the victim's Mother would no doubt prefer the peaceful pose of the deceased after the mortician's art had been practised.

This edition of the Newsletter contains two items created in a special way. The first is Roger Atkinson's municipal motor bus driver/conductor license (Page 12). The thirty year old photocopy, made from a creased and yellowed original, is quite unsuitable for reproduction again by photocopying. We have therefore used modern technology to create a facsimile, employing the various fonts and line tools to create in size and style a replica as near to the original as possible (less of course the folds and creases).

The second item is from the Widnes Corporation archive. Photocopying this document would again be unsatisfactory, so once again a facsimile has been made to match the original layout and typeface. The contents of this sheet of typewritten instructions to the platform staff, intended for the staff noticeboard in the mess room and cash office, are discussed on page 3. Here we would comment on the excellence of the typist's draftsmanship (this was done before the days of typewriters that could "centre" and the invention of "Tippex") and indicates the sort of task that the Manager's Secretary would be expected to undertake.

A third piece of special reproduction is to be found in the first Occasional Paper, which is now due for publication shortly after this Newsletter. The W.T. Underwood report about the work of the Motor Transport Department of H.M. Dockyard Portsmouth was typed on 12 sides of foolscap paper. The copy we have is a carbon copy, and cannot be photocopied in a satisfactory way. The choice was therefore to retype it in the way this text has been done, in two column justified format, with modern punctuation, or to retype in facsimile form, copying the exact original layout and punctuation. This latter process requires the same amount of time as the former, but uses more paper. We have chosen, after discussing the matter, to use the second method, so that reader not only sees the content of the report, but also can appreciate it for what it is, an internal memo from an official to his superiors. It will appear, therefore, with its two deletions and several handwritten changes as inserted by Mr. Underwood. That there are only two deletions in a document of this length is indeed a tribute to the quality of the typist.

We cannot, of course, take this process to the point where deletions can be removed and the original version shown. An example which springs to mind is the Leyland Motors records of 1948-9. In this period a large number of buses were built for one customer but delivered to another. Examination of the original records shows the original customers were entered in pencil in the book, and the subsequent customers were then overwritten in ink, or the pencil entry was rubbed out and the new entry put in. Even in the latter case, careful scrutiny of the page shows what was there originally. Clearly, with documentation of this type, an editor would be best advised to re-draft the list into a new format, with columns marked for "Original Customer" and "Final Customer", rather than indulge in complex footnotes.

Handwritten records also show who created them, sometimes leading to extra insight....look out also for those typist's initials in the "Our Ref." section. The provenance may remain anonymous, but at least one can see how many individuals were involved in creating a set of records, and perhaps begin to judge which was the more careful or better witness of the facts, and which is the one to be least relied upon. There is also the fascination of seeing the change-over from copper plate to a less formal style of hand writing, the advent of the ball-point, and then the appearance of the typewriter, the electric typewriter, the dot-matrix printer, the PC, and so on.

The PC, or course, is clever enough to copy styles, which is what this short item is all about.

Ref. ARP/96.

Breakfast Logistics

or "What cereal did you eat during the War, Daddy?"

The following item is taken from a book published by Kelloggs in 1988, entitled "50 Years of Making Sunshine", and reveals that interesting facts about road transport can be found almost anywhere. Take a trip into the nostalgic past, the world of *Wheat Flakes*, submarines powered by bicarbonate of soda, and where railways were used to transport everyday freight!!

By 1936, sales of Kelloggs *Corn Flakes* in Great Britain exceeded one million pounds per annum, yet all were produced in Canada or the USA. It was thus decided to establish a factory in Britain, where the population consumed over 50 million packets each year, at a cost of five pence halfpenny per packet, all supplied through small local grocery shops.

When Kelloggs first introduced their product to the British market in 1922, it was done through a broker/importer Simond & Company, but two years later, the Kellogg Company established its own office at Holborn, London. A distribution network of ware-houses dotted about the country, operated with one exception by private contractors, was set up: these were served by rail from the ports, and deliveries in the locality were made by vans or horse-drawn carts, or onward by rail again to nearby towns. In London, the rival railway companies operated a joint van delivery service to shops within a 15 mile radius of Charing Cross, and that system remained until 1963, although British Railways did increase the radius to 18 miles. Two of the inland warehouses were served for many years by waterway - by narrow boat from the Port of London along the Grand Union Canal to the centre of Birmingham; and by river barge from Hull via the Trent to Nottingham (and that warehouse, later owned by British Railways, was used by Kellogg for over 50 years). The bargees charged by weight, and because packaged cereals weigh very little for their bulk the barges were loaded with an agreed number of metal ingots to make the trips cost effec-

The Kellogg's British factory was built at Stretford, close to Trafford Park, Manchester. One curious fact concerning its consruction is that steel reinforcing rods used in the concrete silos were made from American railway truck axles, diverted to Britain for re-rolling, as at the time British steel was being diverted into the rearmament programme. The factory was completed in February 1938. It is known as No.2 Building, as the first building erected was the site hut for the construction workers. There was a

canal link to the Bridgewater Canal, and rail sidings. For the next 30 years, the railways were the principal carriers of the finished product, although most raw materials were brought in by water. Distribution within a ten mile radius of Stretford was done by road, by the fleet of vehicles owned by P.L & G.S. Harris Ltd. This fleet was taken into the B.R.S. in 1947, and at that time was mainly composed of Guy light goods chassis fitted with Luton type bodies.

When the factory started production in 1938, it is recorded that only six motor vehicles were parked at the premises. There was a Ford V8 station wagon as the one and only work's vehicle, the 40 h.p. Buick of the Managing Director, a Ford V8 saloon of the Company Secretary, a 12 h.p. Wolseley owned by the Plant Manager, the 10 h.p. Ford of the Production Manager, and the 600c.c. baby Fiat driven by Miss Joyce Hudson, Private Secretary to the Managing Director. The majority of the work force arrived on bicycles, with a few motorbikes. Morning and evening the road outside the factory was filled by a surge of cycles, kerb to kerb, 15 abreast, mingling with a similar phalanx from the adjacent Metrovick plant.

The Second World War saw food rationing, and breakfast cereals were subjected to this scheme. In March 1943, the manufacture of *Corn Flakes* from imported maize ceased, and *Wheat Flakes*, made from home-grown wheat, were introduced instead. There was a zoning system, Kellogg's supplying the north of Britain from Stretford, southern manufacturers supplying their own flaked cereals to the south. When the north/south zoning was lifted in 1948 by the Food Ministry, Kelloggs sent two complete train loads of Corn Flakes to London to re-establish their market, not just in the capital, but throughout the south of England. These trains were dispatched at 12.01 am on the first day to upstage the competitors.

A subsequent marketing stratagem about 1949 was the inclusion of picture cards in cereal packets, subjects being British cars, steam locomotives and famous sportsmen.......the sets have now become sought after by collectors. In 1957, a new give-away was a model submarine, made of plastic, which if fuelled by baking powder, would dive and resurface in a bath of water. Kelloggs were amazed to receive in the autumn of that year a letter from the Escape Officer of H.M.S. Dolphin, Gosport, to affirm that one of the models had been tested in the escape tank, in which submarine crews were trained in emergency procedures. It had dived to a depth of 42 feet, and then it had resurfaced successfully, the whole process taking eight and a half minutes!

In 1963, the announcement of Dr. Beeching's plans to close 2128 railway stations made Kelloggs rethink their distribution system, which relied so much

upon rail transport: The main warehouse handled up to 60 road vehicles and 160 rail wagons in a given 24 hour period. It was decided, therefore, to utilise fewer but larger warehouses outside the factory, and to enter into long-term contracts with strategically placed haulage contractors for the transport of the various company products. Transport from Stretford to these warehouses would still be by rail. The first of the new warehouses was sited at Hatfield (opened 1963) to serve the London area north of the Thames, and the second at Crawley (opened 1965) served south London and south-east England. Scottish distribution was effected from a warehouse in Paisley owned by Arbuckle Smith & Co (opened 1966) although this site suffered two fires, in 1970 and 1972. In 1969, BRS built a warehouse for Kellogg near the Severn Bridge at Avonmouth to serve Bristol and South Wales. A proposed Freightliner terminal nearby was never built, and after a few years of routing rail borne freight via Cardiff, the whole operation became road based, with BRS trunking wagons via the M6/ M5 motorways.

Such transport developments were taking place alongside the initial growth of the supermarket chains. From 50 in 1956, to 600 by 1962, to 3,000 by 1968, the mushroom growth of this form of centralised grocery retailing brought about the "factory-to-theshop" distribution system. Another form of transport, albeit an efficient one, was to cease working for Kelloggs for different resons. The Empire class graincarrying steam ships which came up the Ship Canal to Manchester, and whose cargoes were transferred to the Kellogg grain mill by barge, were at the end of their economic life. The replacement ships were too large to use the Ship Canal, and so Kellogg decided to build a new grain mill at Liverpool (Seaforth)., rather than tranship at Liverpool to large barges, and tranship again at Manchester to smaller ones. The new Seaforth Grain Terminal opened in 1974, with onward delivery to Stretford of the grain by road...

The Crawley and Hatfield distribution centres were served from 1969-1984 by special Kellogg's trains. Each of the two were composed of 34 purpose built rail-vans, and each afternoon at 5 pm a train left Stretford for Willesden Junction, where it was split into two: 17 vans going to the warehouses to arrive at 7.0 am the next day. Eventually this service became outmoded, and road distribution, much of it direct to the supermarkets, took over.

Kellogg's opened a new manufacturing plant at Wrexham in 1978, a state-of-the-art food processing plant, and in 1979 opened a new printing plant for its colourful cartons at Irlam, 10 mil;es from the Stretford Factory. Road transport served these two new facilities...

Odd Observations

A Mercedes 300D saloon seen driving round the north west carries the cherished registration of "I WAS". Surely the money spent to acquire this plate would have been better spent on "I AM"

News current as this issue is compiled tells of the confiscation by Calcutta police of all unregisterd rickshaws. This is shortly to be followed by the confiscation of all registered rickshaws in a bid to remove these vehicles from the streets. The authorities feel such a form of transport does not live up to the image they wish to promote of this teeming city. The move will leave many of the poorest citizens without any form of affordable or practical transport.

In other places in the far east, the rickshaw survives as an object to be photographed, but is otherwise thought of as a socially undesirable means of transport by citizens who can well afford more modern forms of public or private locomotion. Calcutta, however, does not yet seem to have reached the level of social and economic development at which the "man drawn two wheeled chaise" can die out naturally.

Our last newsletter included an item on the "Tunnel Wagon", a horse drawn removal wagon that could be transported by rail. Can any readers provide any further information about early removal wagons and tunnel wagons in particular.

Both Boiltons and Swanns of Cambridge used the same illustration in their advertisements. Were these illustrations found in the Trade Directories of other towns?

> Please contact: Allan Brigham 17 Romsey Road, Cambrbridge, CB1 3DD

> > *******

At the Colloquium at Chorley in June, the need was expressed for a directory of local directories, to facilitate, for example, the study of carrier networks.

Such a book does exist:

G.Shaw and A. Tipper, "British directories. A Bibliography and guide to directories published in England and Wales (1850-1950) and Scotland (1773-1950)", 1989. This was available earlier this year from Academic Book Collection, Freepost, Portishead, Bristol BS20 9BR, at a reduced price of £22.50 plus postage.

The Early Days of Haulage

Some Memories from a lifetime in the road haulage business by Albert Middleton

I was born in 1909, and was engaged in the transport business from the age of 16 until retirement at the age of 75, but I was interested in transport from childhood when my father, A.J. Middleton, ran a small haulage and charabanc company at Newcastle, Staffs. My first recollection was of a day in 1917 when I remember two charabancs loaded with Belgian refugees being taken on a run in the countryside through the courtesy of Newcastle Council. My father drove the second vehicle, a Karrier charabanc, chain driven, and of course fitted with solid tyres. Another early memory was of going to a factory somewhere in Burslem, by what is now the Port Vale Football Ground, and loading up with shell cases which we took to the railway siding. This is mainly recalled because the women at the factory made a fuss of me and gave me sweets. The lorry was probably the charabanc referred to above, with its body exchanged.

I well remember gas bags on cars in those days, but do not recall seeing any heavy vehicles with them. I cannot recall any form of petrol rationing, but I do remember petrol being delivered in 50 gallon steel drums. The drum was put on a stillage, and the fuel was drawn off in 2 gallon petrol cans for transfer to the vehicle; a laborious exercise, but it did not seem so at the time. During the War, my excursions were limited, and I cannot recall much else that was transported, except bricks and tiles were quite common, why this was so when petrol was in short supply I do not know.

In my later schooldays, I spent many evenings in my father's garage, cleaning and washing vehicles. This was really my excuse to drive them to the spot for washing off. In the garage was a small Oneida charabanc, and two Ford Model T taxis. These were easy to drive but hard to start...the reason for this may be of interest. All large engines were fitted with a heavy flywheel, this was to create inertia when they were turned comparitively slowly with the starting handle. The type T Ford had a medium sized engine and no flywheel. The better way to start them, especially on a cold morning, was to jack up one rear wheel, scotch the vehicle securely, release the hand brake and put the car in top gear (only two gears, high and low). When you now crank the engine, the

jacked up wheel will also turn, and act as a flywheel. By today's standards it sounds crude and ridiculous, but it was very effective. Once the engine was going, the procedure was reverted. Later I was able to drive the Oneida and the taxis, which belonged to other people. The Ford taxi was a regular job on Saturday night, often taking drunken parties home, but never any trouble.

My father employed me when I was 16, and a year later allowed me to drive. We then had three up to date AECs, new 1921-2 with Tylor 40 hp engines and fitted with windscreens, although there was no fully enclosed cab. My first job was carrying gravel from Ashlev to build the walls in Priory Road, Newcastle. Of course, I not only had to drive the lorry, but shovel the load on and off! Two of these AECs were easily converted into charabancs, by exchanging the bodies. Registration nos. E 3228 and E 3159 were called "Pioneer" and "Mountaineer" when set up to carry passengers. Although Father said I could not drive a charabanc until I was 21, he had to allow me to do so when a regular driver fell ill: I was so proud when I took my first party to Lilleshall. After that I was allowed to run a service on Sundays to Trentham.

Soon after I started driving in 1926, I found myself in the thick of the coal strike, carrying coal from the outcrop fields to factories and hospitals, and loading barges for more distant destinations. We also carried cattle food to the farms, with a big notice on the front of the lorry "FOODSTUFFS"; this was for the benefit of the pickets who were everywhere. The usual goods carried were gravel for new roads, bricks and tiles, cattle food, and basic slag for the fields. Once a week we took empties and returned with beer from a brewery at Leek.

Reverting back to the War years, I well remember a regular influx of wounded soldiers arriving at Stoke Station and taken past my home to the Hospital at London Road, Newcastle. All sorts of horse driven vehicles, cars and little trucks were used, and always at the rear a doctor in his two-seater De Dion Bouton with tiller steering. I was too young to understand the tragedy and suffering, but more interested in these new-fangled motors. The tiller steering was just a shaft sticking out of the dash, and moved from side to side to operate the steering. My father's Karrier lorry/ charabanc was fitted with "normal" steering, and had a crash gearbox, a single de-clutch to change up, and a double de-clutch to change down. With these slow vehicles it was difficult when ascending a steep hill to change from second to first gear, as before completing this operation the vehicle would stop and start rolling back. The driver would turn into the grass bank if lucky, a ditch if unlucky. These vehicles would appear to be very dangerous, but then with virtually no traffic on the road and being so slow, I don't remember any serious accidents.

There were many problems in the early days with Police, and the charabanc drivers were always the villains! Between the two wars I had 18 prosecutions, never anything serious, mainly speeding, overloading, flats on the solid tyres, and rear storm lamps going out. The most serious was speeding at 23 mph, and I was fined £3....at the time, more than a week's wages. Since then, I have never been in trouble. In those days there were no roadside cafes and we carried sandwiches, and heated a bottle of cold tea on the exhaust manifold. When it rained we used a piece of canvas tied on with rope, and to get heat you could open a trap door, underneath which was the exhaust pipe, often red hot.

One incident I remember was the village constable testing the brakes. I was told to operate one brake at a time, and had great difficulty in explaining that the clutch was not a brake. He didn't believe me, and said that I would be reported, but I heard nothing afterwards. The Police would set speed traps, usually over one or two miles. Two policemen would hide in a lane, with two more one or two miles further on, all with watches synchronised. You were then pulled up by police, and warned you had been checked, and if found to have been speeding you would be reported. One case I remember concerned my father. He was driving a charabanc between Tarporley and Tarvin, and was pulled up and warned that he had come through a two mile trap. He was allowed 12 mph, but found to have done 13 mph, and was fined £5. What the equivalent of that fine would be today I don't know, but it was an outrageous amount for just 1 mph!

It was quite common for cyclists or children to hang onto the back of the vehicle, and we often got a shout from pedestrians of "whip behind!" There were still horses and carriages about, and this must have been a regular warning. Another problem of the times was cattle, which were driven on the roads when they were being taken to market. On secondary roads with a ditch on each side, getting past a herd of cows was a headache, and in many places, impossible. As now the weather was another problem. Driving a vehicle fitted with solid tyres on ice and snow was a nightmare. There was no such thing as Antifreeze, so it was essential to drain the system. On the AECs fitted with Tylor engines, you could drain the radiator and cylinder block, but not the water pump, and this caused problems on a frosty morning. If you could not fill up with hot water, it was quite easy to break the water pump shaft. Many weaknesses in the vehicles were axle shafts, springs, and cracked chassis, for the steel was not what it is today. If an axle shaft broke, it was necessary to remove the differential so as to clean out the broken pieces of the half shaft. On a dark wet night, taking off part of the load to remove the diff. without a light and proper tools seems laughable now, but not at the time.

My father had a garage where the Newcastle Bus Station is now, and lorries used to park up for the night. As a young man, the lorries were of great interest to me, many of them American, left over from the First World War, Peerless and Pierce Arrow, also regular visitors were Pratt's tankers, two of them were American Libertys and another a Thornycroft Taunus. Another regular was an Armstrong-Saurer, which did not have the usual bulb horn, but a whistle set in the cylinder head, worked by a switch operated with a piece of string. One Pierce Arrow belonged to Emery and Partners, Liverpool, and had wooden wheels. In dry weather the solid tyres with a steel rim would gradually creep off, and the driver used to knock them on with a sledge hammer. I then earned a few coppers hosing the wooden wheels to expand them.

About 1930 my father went out of business, and I started working for a small operator, W.Barber at Newcastle. I was then blessed with a Karrier chain drive solid tyred lorry with a leather lined clutch. You couldn't start smoothly, if you didn't stall your engine, the vehicle moved off like a bucking bronco, leaping forward, the front wheels almost leaving the ground. There were no "L" plates in those days, but it looked as though you needed them. On the road, you needed to carry engine oil and a bucket of grease for the chains, and a spare magneto. We then had acetylene headlamps. A driver was expected to do his own minor repairs and greasing, if not, they would find a driver who could. This made for a seven-day week.

In the twenties and thirties, there were still steam driven vehicles in abundance. I used to see them at regular stopping places filling up with water, ponds, brooks, and even canals. Early in the twenties there were two Foden steam lorries regularly parked each night in my father's garage yard. These were driven by one man who steered and another man at the controls. This man was known as the driver, and as the controls were in the centre of the cab, he carried a red flag on a stick to put out, indicating he was turning right. The steering wheel was made of steel, with a vertical hand control. This had to be turned many times to operate the steering, which in turn had a heavy chain going somewhere to turn the wheels. Being very young at the time, I can only give this vague recollection...no doubt the vehicles had been built before the First World War. Just one little doubt, I think they were Foden, but am not absolutely sure. They were owned by Staffordshire County Council. One of the drivers was named Ivor Pye, and woe betraffic on the road and being so slow, I don't remember any serious accidents.

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Funny old TIMES

Roger Atkinson delves into past copies of THE TIMES and finds an item that probably does not frighten the operators of today's buses

At MARLBOROUGH STREET, CHARLES SAMUEL BURTWELL, an omnibus proprietor of New Kent Road. and JAMES BAXTER, a conductor in his employ, were summoned by Mr Edward Bennison Souper, a gentleman residing at Broad Ash, Cheam, Surrey, for wilfully deceiving him with respect to the route and destination of an omnibus in charge of Baxter. The complainant said that on the 8th inst., he in company with his son, got on to Burtwell's omnibus at the corner of Chancery Lane. with the view of proceeding to the Royal Oak, the vehicle being marked on the outside "Bayswater, Paddington, and Royal Oak". White proceeding westwards, Baxter told the passengers that the vehicle only went that journey to Oxford-circus, and when they arrived there, they were all turned out in the rain. The complainant refused to pay the fare unless he was conveyed to the Royal Oak. When he complained, the conductor showed him a written notice in the window, on which was written "Oxford-circus only", the complainant only brought forward the matter on public grounds and hoped that if fines were imposed they would be nominal. In defence, Burtwell said that it was the practice of the London General Omnibus Company and of tramway companies to put notices in the windows of their conveyances stating that they only intended to send them to a particular place on certain journeys. In the present case he had committed no offence, his conductor being at fault in not turning round certain boards that were on the omnibus, thus hiding the words "Paddington, Bayswater and Royal Oak". Baxter admitted that he was in fault in not altering the boards on the vehicle. The son of the complainant stated that as soon as he got on the omnibus, the conductor informed him that the vehicle was only going as far as Oxford-circus. Mr. Newton said that it was clear that the complainant had been deceived as to the destination of the omnibus, and having cautioned Baxter as to his future conduct, fined him 20s., with 2s. costs. The law did not reach the proprietor of the omnibus, but in Mr. Newton's mind he was equally guilty. The summons against Burwell was therefore dismissed, but he was advised in future to have all his omnibuses properly labelled.

THE TIMES 21 October 1892 (page 11,column B)

Roger is currently researching the ownership of tickets (are they property of the company providing transport, or the passenger?) and will write on this in a future Newsletter.



Roger Atkinson and Ron Phillips muse over the legacy of detail left in Municipal Council Minutes. But they wonder what is being bequeathed today.

The document depicted overleaf dates from the period before the Road Traffic Act of 1930, when municipal councils issued licences to both taxis and omnibuses, and also licensed the drivers and conductors of the same. The transactions of the councils may still be read about in the published minutes, which usually took the form of monthly booklets, later bound at the end of the municipal year (October/November) into a volume with an index, any special reports, and the verified budgets of each.

These published minutes are an invaluable aid and are easy to access, and the index is usually fairly comprehensive, thus saving time in library reading rooms. Of course, the matters discussed are shown only in the form of minutes, and it is often helpful to look very carefully at the financial or other special reports, where extra specific details may be found. For instance, if the Council "resolved to buy as many new buses as the General Manager required to replace worn out machines at £1500 each", the accounts will reveal how many such vehicles were bought.

Secondly, if researching subject A, one should look at subject B and maybe C as well. For instance, tramways should not be researched without reference to the department in charge of the roadways, nor probably the electricity department if it be separate from the tramways. Where transport routes overlap into adjacent districts, the minutes of those districts should be looked at too. It is sound practice always to look at the minutes of the General Purposes Committee, as most new initiatives start here.

What the indices do not tell you is the whereabouts of those happy snippets of information about other places. Councils starting a new venture often visited other towns to compare notes, and those lucky councillors whose journeys were paid for out of the public purse were expected to report back. Thus, as seen in the article commencing on page 13, important data on affairs of other towns (and which may not appear in their minutes) can sometimes be found well recorded in places many miles away.

The trouble is, such records are no longer being maintained. The majority of Council affairs to-day are of a political nature. (continued over)

BOROUGH OF OSWESTRY.

Driver Licence to Act as Conductor of Motor Omnibus

We, The Mayor, Aldermen and Burgesses of the Borough of Oswestry in the County
of Shropshire, pursuant to the powers and authorities enabling us in this behalf, and upon
the application of
Do hereby Licence him to act as a Conductor of any Motor Omnibus licensed
to ply for hire within the distance in that behalf prescribed by us.
This licence to be in force for one year only from the date hereof, or until the
next general licensing meeting where a day for such meeting is appointed.
No. of Licence.
Given under our Common Seal thisday of19
Registered.
Town Clerk.

. The illustration is of a Municipal Licence as issued to a bus driver and/or conductor before the implementation of the Road Traffic Act of 1930. The facsimile illustration is from a photocopy in Roger Atkinson's collection: the quality of the photocopy, and the fact that the original had been kept folded in the driver's wallet for many years, did not allow us to use a direct illustration. The Town Clerk's signature, applied by rubber stamp, has faded to illegibility.

With hindsight, one might ask just how important such licences were, other than as a source of local revenue, and as a means of compiling statistics. Buses, too, required local licences, and the following facts are recorded in the Halton (Widnes) Borough Transport archives. When, in the late twenties, Ribble Motor Services commenced a Sundays only service, Wigan - Widnes, they were required to licence 27 vehicles: this was the then current allocation at Wigan depot. (Similarly, Crosville licensed all the buses at the nearby Warrington depot). When the licences were due for renewal in the second year of the service, Ribble Motor Services sent a full fleet list to Widnes Corporation Motor Omnibus Department, (some 500 buses). The Superintendent of WCMOD wrote to the Town Clerk of Widnes, saying the idea was ridiculous, and that Ribble should be asked to reconsider the matter. The Town Clerk, however, replied to his subordinate that it was out of the question that Ribble should reconsider, as at 5/- a time, it was in the Town's interest to comply with the request. It is assumed that a municipal clerk was then given the task of writing out the certificates for each of Ribble's current vehicles. One also wonders if Ribble followed the same practice with other municipalities through which its vehicles passed.

Transporting the Unmentionable

Ron Phillips examines one aspect of municipal transport which receives little attention from historians.

The Sanitary Works Department of the town of Warrington was charged, inter-alia, with the duty of maintaining a means of emptying domestic earth closets, and transporting the contents of such closets to a central depot, where such contents would be treated. The actual wording of the duty of the SWD was as follows:

"To execute the provisions of the Warrington Improvement and Market Act, 1854, with respect to the collection and distribution of night soil and refuse, and for the erection of machinery or apparatus for the manufacturing of the same into manure, and for the sale thereof"

To this end, the Warrington Corporation had a Manure Works, otherwise called Longford Depot, situated on the then outskirts of the town. As the means of transportation was horses and carts, it was also necessary to maintain depots in the centre of the town, known as the Intercepting Depots, situated at Howley and Hardy Street. The purpose of the latter establishments was to act as collection points for the contents of the night soil carts. These were then tipped into a receptor vessel, and then conveyed by means of compressed air in under-round pipes to Longford Depot. This ingenious piece of Victorian Sanitary Engineering shortened the distance that the horse drawn carts were required to travel. It was as much a question of economic necessity as of limiting the distance that the malodorous cargo was carried through the streets, for by the use of Intercepting Depots each cart and its team of men could service more closets per shift. It should be added that the work was done at night during the summer months, with time tables differing between the winter/summer because of the differing length of the hours of darkness.

The SWD kept horses and carts for this work. There were in fact three types of cart: those for the conveyance of refuse, those for the conveyance of the night soil, carried in containers referred to as pails, and carts used in connection with the operation of the depots, which used fuel and various chemicals for their continual operation. At the start of the twenties, the SWD purchased some motor lorries to perform some of its work, these being solid tyred Vulcans. As is well known, motor manufacturers were quick to

recognise the so called "municipal market", and one or two produced specialised vehicles, the pricipal feature of which was small diameter wheels and simple controls. The most well known are Dennis, Guy, and Shelvoke & Drewry. The small wheels allowed a low set and tippable body to be provided, thus allowing the crew of the vehicle to be able to toss the contents of refuse bins aboard with ease, and the contents to be tipped freely at the depot without the inconvenience of intrusive wheel arches. Not all towns chose to mechanise in this way at this time. The larger the town, the greater the distance the journey to the depot, and it was not economic for the crew of the wagon to spend much of the working day riding to and from the tip. Liverpool mechanised by purchasing a fleet of Pagefield wagons equipped with winches and ramps up which horse drawn refuse carts could be hauled. The Pagefield would bring an empty wagon to the team of dustmen, and take away the wagon they had filled. The horse and men returned to the depot just once per day.

Warrington eventually hired a Shelvoke & Drewry refuse cart, and finding it satisfactory, purchased a number of the same. Such vehicles were not the solution to the removal of night soil, however. As this task was sometimes nocturnal, and of a stop-start nature, both a low loading and silent vehicle was required.

The main purpose of this article is to tell of the process by which the night soil removal was changed from horse traction to motorised transport. At the meeting of the Sanitary Works Committee of the Warrington Corporation in December 1922, no less than four sub-committees were set up: Horses and Stables, Works, Concentrated Manure, and, a newly devised "Sub-Committee to consider the question of Motor Vehicles for the removal of pail contents in substitution of the present Horse-drawn system". This was abbreviated to "Motors v. Horses Committee" and shall be referred to herein as the MHC.

The MHC, consisting of five councillors, met at Howley Depot 9/1/23, and heard a report by the Depot Superintendent. It was then arranged to meet again 12/1/23 to inspect "the Ford Car belonging to the Department, which had been fitted, as an experiment, with a special body to carry 30 sanitary pails" Having seen this vehicle, the Sub-Committee resolved to recommend that 8 Ford chassis should be bought and fitted with special bodywork. Two men would operate the cart, and two men would remain at the depot as back-up, emptying and cleaning pails. In this way, no men would be put out of work. The Sanitary Committee at its meeting of 23/1/23 voted to further consider the matter, rather than adopt the suggestions there and then. The motion to do this was moved and

seconded by Aldermen, clearly a case of Wise Old Heads curbing the Young Bloods. At the next meeting in February the MHC was instructed to give further consideration to the matter, and was instructed to visit the nearest towns were motor transport for night soil collection was in operation. The visiting party was to be made up of the MHC plus the Chairman of the Sanitary Committee and the Cleansing Superintendent. The final business at the meeting of 20/2/23 is of passing interest. It was resolved that a Tram Driver, whose eyesight had failed, be employed as lavatory attendant at one of the new conveniences then being constructed!

At the meeting of the Sanitary Committee in May it was reported that the MHC had now made "exhaustive" enquiries and visited certain towns, and were now of the opinion that electric vehicles would be best for the purpose of night soil collection. The advantages claimed for electric vehicles were:

Simplicity of driving
Ease and quictness in starting
No changing gear
Little mechanical knowledge required to operate
No wear and tear while loading and unloading
Oiling reduced to a minimum

Silence in travelling during collection operations
The whole Committe resolved that electric vehicles should be adopted, and that a full costing should now be made, with comparisons, for presentation at the next meeting.

In June, the Committee was informed that the MHC had inspected a demonstration wagon shown by Pagefield (Walker Bros., Wigan) and had visited the garage of Greenall, Whitley & Co. of Warrington to inspect an electric lorry and its charging apparatus operated by them. Visits had been made to Rochdale and Huddersfield, the Town Clerk had received information from Willesden and Deptford (which was reported to have just ordered 2 S&D Freighters) and an offer made by Glasgow Education Authority for second hand vehicles had been received and had not been entertained. In addition, a written report by the MHC was circulated. Some extracts from this follow, and throw light on practice in other towns as well as that of Warrington.

The existing arrangements at Warrington were described in some detail. Sixteen horses, of which two were held in reserve, were employed to make a weekly collection from dwellings in the town. Fourteen carts, crewed by a driver and a carrier, each carried 28 pails, and in all 13,328 pails could be handled each week. It was estimated that up to 15,000 pails were in use in the town, and the extra pails were dealt with by 48 extra journeys made by carts which were allocated to the shortest runs. A fully loaded cart weighed 21 cwt. As already explained, the carts took the pails to the

Intercepting Depots, and not to the Main Depot. at Longford, these being situated closer to the area from which the collections were made.

At Huddersfield, the MHC found that there were 14,000 pails in use, and that horse carts pulled 4 loads of 24 pails per day. Some motor vehicles were used for the longer runs. The contents of the pails were dumped into middens of straw, and subsequently taken away by barge for use by farmers. At Rochdale there were 11,083 pails, collected by 5 motor lorries and 8 horses. The lorries were of Thornycroft and Leyland make, 3 tonners, and carried 76 pails placed pyramid fashion on top of each other, only pails not covered by others being sealed by lids. The lorries made 5 trips per working day, and the horses made 4 trips with 24 pails per day. The system of disposal was the same as that at Warrington.

Greenall, Whitley & Co., Wilderspool Brewery, Warrington were happy to provide the MHC with comparitive operating costs for the various types of vehicle in their motor transport fleet.

6 ton steam wagons 5.5d per mile 5.25d per mile 5.25d per mile 5.5d per mile 5.5d per mile

They opined that electric vehicles were best for town use. Willesden advised that 15 electric vehicles of Orwell make, 50cwt capacity, were in use for refuse collection and gave very satisfactory results over a period of two years. Edmonton had used similar vehicles for a slightly longer period, and claimed a saving of over £3,000 per annum over horse drawn transport. The Engineer was very satisfied with the electric vehicles, but stated that his Council had now decided to let by contract the collection of house refuse. Glasgow had 22 electric wagons, purchased between 1916-1921, and had found that the cost of operation of petrol engined vehicles exceeded that of electric vehicles and horse drawn vehicles. Electric carts had been found efficient, reliable, economical and easily driven

This report was illustrated with two tables as shown on the next page, showing the amount that it would be necessary to borrow, and estimated annual costs of electric vehicles as compared with horse drawn carts. The Sanitary Committee duly asked that tenders should be drawn up "for the supply of five electric motors for submission to the Sub-Committee and on approval thereof to advertise for tenders" At the next meeting tenders were opened, and during August 1923 the makers of Orwell electric trucks (Ransomes, Sims, and Jefferies, of Ipswich) were invited to show a demonstration vehicle at the Central Depot (Howley). The trial took place 27/8/23, and the vehicle was fitted with a "template" body to prove that it could negotiate the entrances to the depot and

CAPITAL EXPENDITUR	Œ	DETAIL OF MATERIAL FOR DIS ESTIMATED VALUE	POSAL AT
To 5 50cwt electric motors complete " Charging Plant	2395 0 0 450 0 0	18 horses aged as follows:- 8 to 14 years - 16 horses (a) approx £30 5 to 7 years - 2 horses (a) approx £50	480 0 Q 100 0 0
Less amount estimated to be received for sale of materials	652 0 0	14 sets harness and gears @ £3 14 horse cloths @ £1 each 16 vans @ £1 each	42 0 0 14 0 0 16 0 0
To be borrowed	2733 0 0	The Self-Seat is been supposed	652 0 0

TABLE No. 2 COMPARITIVE COSTS OF COLLECTION OF NIGHTSOIL

ELECTRIC MOTORS v. HORSES

Estimated annual cost of collection by and including annual charges on cl		Present cost of collection by 14 Corporation horses per annum and 2 reserve horses		
Cost of current on estimate of 5000mile	es	1 Driver (a) 59/- per week	153 8 0	
per annum	118 0 0	1 Loader (a) 56/9 per week	147 11 ()	
Battery maintenance, 18000 miles life	350 0 0	Horsekeep, includes feeding, bedding,	vet	
Tyres, 12000 miles life	90 0 0	charges, shoeing, depreciation &c	80 12 0	
Driver's wages (63/- per week) (5)	819 0 0	Maintenance of van	13 0 0	
Loader's wages (56/9 per week) (28)	3393 0 0			
Annual interest & repayment of loan	470 0 0	Cost of 1 horse per annum	394 11 0	
Maintenance, insurance & taxation	180 0 0	Cost of 14 horses per annum	5523 14 0	
		Cost of 2 reserve horses per annum	161 4 0	
	5420 0 0			
			5684 18 0	

ESTABLISHMENT CHARGES NOT INCLUDED

July 3rd, 1923

the passages between nearby houses. The Borough Electrical Engineer was also present to discuss the installation of the battery charging apparatus.

Following this, a firm order was placed for the five machines required, and it will be noted that the prices were higher than those shown in the estimate above: the 5 Four tonner Orwell Electric Vehicles cost £3110, and the charging plant £647. The work of the MHC was now completed, the loan for the charging plant and new vehicles was approved by January 1924, and at the suggestion of the manufacturers, the man to be in charge of the electric vehicles was sent to Ipswich for one week to become familiar with how to maintain and operate his new machines. Mr. J. Dooley was recommended for this post, and visited Ipswich and Clifton Junction, home of Chloride Company's battery works, for training. The new vehicles were available for service in June, (see opposite), and the horses were then made available for service with other departments of the Corporation that might otherwise have had to hire horses from outsiders.

The Orwell electric carts gave excellent service, some lasting until the end of the use of the type of closets they served. After two years of service, the

Street Intercepting Depot might be closed down, as the electric cars, with very little extra time required, could deliver their loads to the central depot at Howley, which was situated further from dwellings and in a less congested part of town. To this end, an additional vehicle was purchased. It appears, from its chassis number, that it was contemporary with the main batch of carts, so it may have been a demonsdration or experimental chassis. It was fitted with a cab structure by a Warrington coachbuilder. The Hardy Street depot was closed, and the premises quickly demolished.

Kans	omes,Sims &	Jefferies	"Orwell	'Vehicles
No.	Registration	Chassis	Date New	Withdrawn
1	ED 3292	1358	1/5/24	9/48
2	ED 3293	1370	4/6/24	8/50
3	ED 3294	1270	4/6/24	8/50
4	ED 3295	1269	4/6/24	9/51
5	ED 3322	1392	4/6/24	9/48
6	ED 5117	1398	7/28	??

The fleet of carts received good reports in the years following their introduction for reliability and economy, and the Sanitary Works Department seems to have been an efficiently run concern. The question that we would ask today is why did the Department not convert closets to, if we use the 1925 official jargon, "the water-carriage system". The Committee raised this question itself, amongst the many other things it discussed....for instance whether Crosville Motor Services be allowed to install a clock in the conveniences/shelter situated at Bridge Foot, in the centre of Warrinngton. It did, in fact, agree to this, with the proviso that the maintenance of the clock and responsibility to see that it kept time be dealt with by Crosville. There is, in fact, much of interest to the transport historian in the minutes of the SWD, as urinals and conveniences were essential features of all the tramway termini. Such provision in Warrington reached its apogee in the 1931 building at Cemetery tram terminus. This was a joint effort between the Cemetery, Tramways and Sanitary Departments, and can only be described as grandiose. Built adjacent to the Cemetery gates, and in harmony with the two existing lodges thereof, it boasts ladies' and gentlemen's conveniences, a tramway shelter, and a south facing "old men's shelter" overlooking the Cemetery gardens. An extensive use of stone was made in its construction, and there are even tudor style chimneys. The tram line was extended so that cars stood adjacent to the shelter. The original cast iron urinal was remoived, and a cast iron tramway shelter was taken to Bank Park. The building is currently disused, but its long term survival may be won as a result of its solid construction and not unnattractive appearance.

Returning to the matter of domestic sanitation, the SWD discovered to its shame that Warrington was bottom of the league of the top 96 towns in Britain in regard to the conversion of domestic toilets from the "conservancy" type to the "water-carriage" type. The statistics gathered by the SWD in relation to the years 1924-6 show that neighbouring Wigan had converted 2000 closets, the costs shared 50/50 by the Corporation and the owner, and that now only one quarter of Wigan closets were of the older type. In Manchester the ratio of old type to new type was 1 to 22! In Warrington the ratio was 4 old closets to every WC. Needless to say, a policy was formulated, and some work done (particularly in eliminating the old type closet from schools), but the main obstacle was that of additional water supply.

In conclusion, the statistics gathered reveal that in Middlesbrough, South Shields and Tynemouth the sewage was not treated and left to flow into the sea or the River Tyne. How times have changed!

List of ROYAL ORDNANCE FACTORIES

In our last issue, we asked if any additions might be made to a list of ROFs in operation during the 1939-45 war. Dave Bubier wrote:

"I would add two,viz, Glascoed (between-Pontypool and Usk) and the Dinham Factory, Caerwent. The former has a railway connection (part of the former Pontypool-Monmouth line), and had a station, so I believe, and an internal bus station. I drove in here with works buses during the "70s, when it was served by about 15 vehicles per shift and an interchange took place at this bus station for workers to go to their locations, certain coaches doing a circuit of the premises.

The Dinham factory, after being a manufacturing centre during the war, became the main US army munitions dump for Europe, and when I visited I noted the remains of a bus station, although no works services have been provided in modern times. It also has a rail connection but the general concensus that I have got from speaking to old railway men is that there was not a passenger service over it."

DB

The PATTENDEN Shelter

Mrs Karen Tayler (nee Pattenden) writes:

"I have been researching the surname Pattenden for the past thirteen years, and was most intrigued to be sent a photo of a Pattenden bus shelter by a correspondent.

The BTC Museum in London was unable to help even in dating the picture. It looks as though it came from a catalogue of the 1950s or 1960s, and I would be interested to learn anything about the shelter- whether it was in general use, or if the name Pattenden means anything with you."

The illustration (not able to be reproduced) shows a metal framed shelter with back, roof, and side wings. It is described as:

"A Pattenden Shelter, two bay standard type, of all metal (non-ferrous) construction. 15 ft.long by 7 ft 6 ins high, with currugated metal and perspex roof."

If you are able to identify this type of structure or supply any information on the subject, please write to Mrs. Tayler whose address is:

56 Yew Tree Road, Southborough, Tunbridge Wells, Kent TN4 OBN.