

ROBERT G. THOMAS

THE MODEL ENGINEER'S ENGLAND

. . . a chronicle of the experiences of George and Bob Thomas as they explore the hobby of Model Engineering in Great Britain.

Robert G. Thomas

1971

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THE MODEL ENGINEER'S ENGLAND - The Arrival and the First Two Days Abroad
--by the Editor

To those for whom the be all and end all of railroading is a black 4-8-4, British Railways do not offer much of interest. Nevertheless, England is rich in railroad history, technological innovation, and above all, an almost unbelievably large body of enthusiasts who indulge their railway interests by way of museums, prototype restoration, fan trips and building miniature locomotives in numbers U.S. modellers can barely comprehend, let alone ever expect to match. As a follower of the British model scene for the past seventy years, the possibility of a trip to England was quickly and eagerly snapped up by my Father when I first proposed it. This was to be no ordinary tourist's junket; there would be no Changing of the Guard or St. Paul's Cathedral for us. This would be a railroad enthusiast's trip through and through, with emphasis on model engineering. An so on the evening of Thursday, September 17, we found ourselves at the start of an adventure neither of us will ever forget!

Because of our late takeoff from Philadelphia we landed at Heathrow forty-five minutes late at 9:00 AM. Unlike entering the U.S., you can walk right through British customs if you have nothing to declare; so there we were - officially in England! The first stop was at Barclays Bank where we changed \$ for £, then to Hertz for a car, which had been reserved a week before. Also reserved earlier was a room at one of the hotels near the airport. After sitting up all night, even though it is only a six-hour night, we were happy to have a room five minutes from the airport. A quick shower, then to bed for a four hour nap, and we were up, through lunch, and on our way to the first stop in our odyssey: Henley-on-Thames, home of Stuart Turner.

Henley is about eighteen miles from the airport on one of the main roads from London to Oxford. The S.T. establishment is housed in a narrow two story brick building having a show window in front where examples of all the S.T. engines are displayed along with some pumps of various types. The model supplies section is now located on the first floor, and when you enter you are liable to see apprentices and some of the local ladies assembling small parts for steam fittings or standard boilers. All around are shelves on which there are boxes marked with such alluring names as "Beam Engine Cylinders", "No. 9 Flywheels", or "IGH Boxbeds". In addition there is after row of boxes containing complete sets of castings for all the well-known Stuart engines. Needless to say, the temptation to take one home is great, and on this, my third test, I failed miserably again, and purchased castings for the two cylinder single-acting enclosed "Sun" engine. I also got an assortment of stainless steel balls, which are accompanied by the claim "Use them in your fittings and your troubles will cease." We'll see...

We were close to the old Great Western main line to the West, and as it was getting near to 5 PM we decided to do some train watching at Maidenhead. If you have sat in one of the PRR main line stations in years past and watched the trains roar through in the evening, you have some idea of the scene we encountered where plush named passenger trains and ordinary intercity expresses rush to and from Paddington Station at five minute intervals. No one needs to be warned to say back from the edge of the platform. With some adaptation still to be made for our time change, it was about time to get back for more sleep and a big Saturday.

As Saturday dawned balmy and bright we headed fifty miles south to East Sussex, stopping to get a hotel room--one of the four at the "Bent Arms" in Lindfield--then continued onward to the Bluebell Railway. The Bluebell is a restored section of rural trackage originally formed by a group of wealthy landowners in 1882, but acquired almost immediately by the L.B.S.C.R. It was never particularly successful and finally closed in 1958, however, within two years' time a group of enthusiasts raised sufficient funds to purchase five miles of line which was duly put in order.

and reopened in August of 1960. A wide variety of locomotives and rolling stock has since been added so that the Bluebell Railway is now a well-integrated example of LBSCR and Southern Railway architecture, signals, locomotives and coaching stock. It is one of the most successful tourist railways in England.

We arrived at the Horsted Keynes station of the Bluebell well enough in advance of the train departure time to enable a good look at the three-track brick station with high level platforms and underpass (pedestrian subway) for access between platforms. Soon the train arrived, hauled by a diminutive 0-6-OT No. 27, formerly of the South Eastern and Chatham Railway. The little feller built in 1909, was resplendent in green livery with large polished copper steam dome, and two inside cylinders of only twelve inch bore and eighteen inch stroke. After running around the train and coupling up again it was ready to leave, so we hopped into one of the wooden compartment coaches and slammed the door behind us; a door-closing ritual to be repeated, with some degree of awe, many times before we left Great Britain. The locomotive huffed lightly across the countryside, under brick arch bridges and into the station at our destination: Sheffield Park, after the name of the estate of Lord Sheffield who was one of the founders of the original railway. After we saw the engine receive water we noticed a wisp of smoke and steam at an engine shed in the distance, and sure enough, there was a large locomotive, too distant to identify, but obviously under steam. We paid a small fee for access to the railway's yards and engine shed but our attention was diverted momentarily by several of the other Bluebell locomotives that were standing on outdoor yard tracks. Among them was "Stepney", an 0-6-OT Terrier type built in 1875, that once graced the cover and inside pages of the Model Engineer during the series on "Boxhill", the prototype of which now resides at the museum in Chapham. "Stepney" is unfortunately that worse for weathering, as are many of the Bluebell locomotives due to inadequate indoor storage facilities. When we arrived at the main attraction, we found it to be a 4-6-0 BR Class 4, given to the Bluebell by an anonymous donor, no less! A long time was spent admiring the rods, valve gear, and lubrication system, wondering at the large pony wheels and slanted cylinders, and generally commenting to each other on the unique features of the British speedster. The engine was finished in olive green with orange and yellow lining.

In a conversation with some of the volunteers manning the Sheffield Park station, we learned that the 4-6-0 was to haul trains in regular service the next day, but since we had planned other activities, we reluctantly decided not to see the engine in action.

The day was not over yet, however; we were still to visit the track of the Sussex Miniature Locomotive Society, located just ten minutes away from the Bluebell. The track is on land in a District Council park known as Beach Hurst Park. Those who have seen my movies, taken on a previous visit, will understand my observation that the SMLS track is in a bucolic setting, skirting as it does two bowling greens on land overlooking the rolling hills of Sussex. The club recently negotiated use of land that will double their track which is presently 1150 feet of 3-1/2 inch and 5 inch gauge on an elevated structure made of parallel steel beams supported on concrete piers. Rail is laid on ties fastened to the tops of the steel beams. The club is one of the most prodigious passenger haulers in England and this is reflected in the safety features of their track, passenger cars and signal system, all designed to permit very fast but safe running. Usage of the land is obtained in return for a portion of the passenger hauling revenue.

When we arrived there were several engines on the track: a 4-6-0 LNER "Springbok" brought by a visitor from Manchester; an LBSCR Marsh 4-4-2 Atlantic in Chocolate livery brought by a member of the Wembley club; a 2-6-0 British Railways No. 42945

THE MODEL ENGINEER'S ENGLAND (continued)

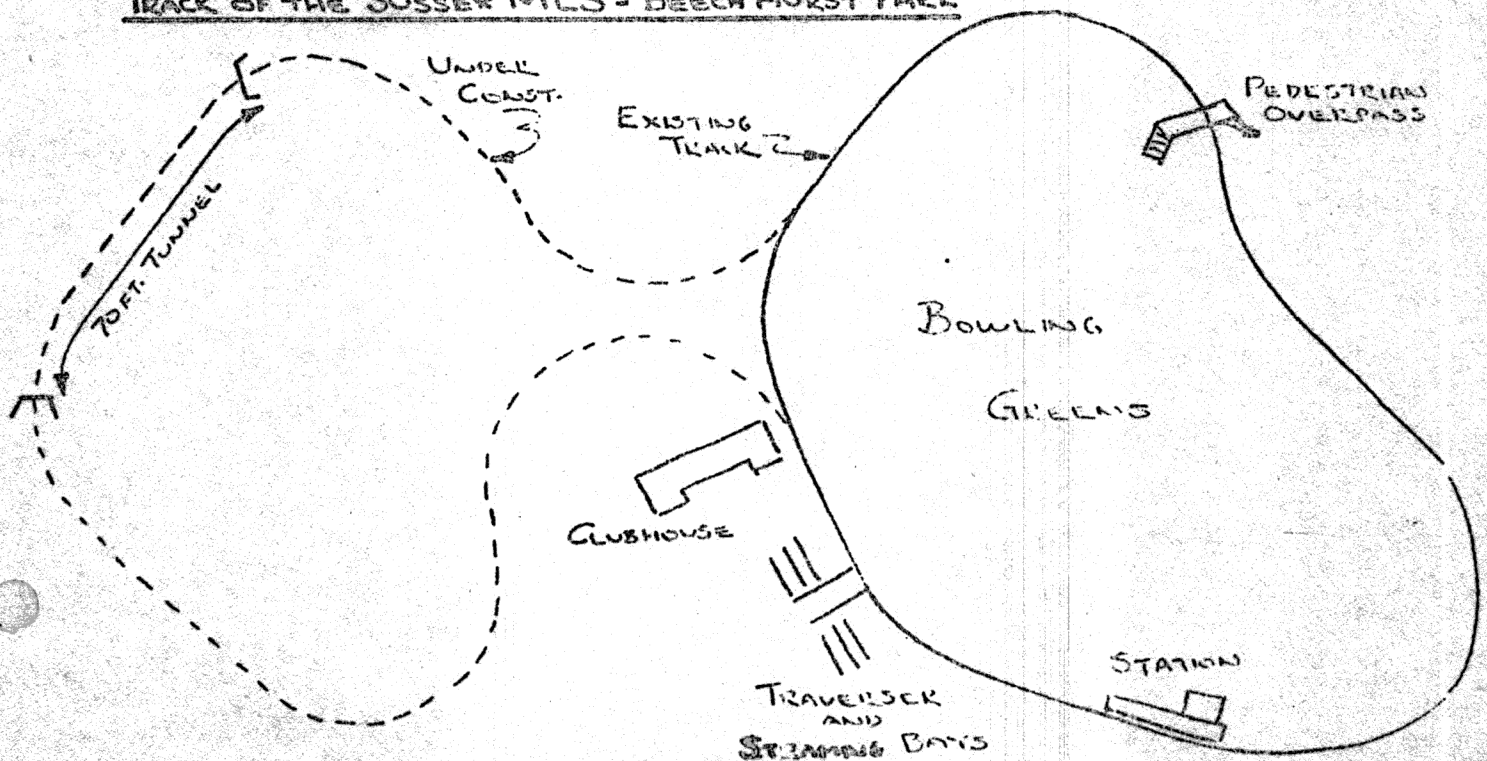
in matte black; and an 0-4-0 "Tich". All were 5-inch gauge except the "Tich". Later a GWR 4-6-0 "Whaddon Hall" - the ninth locomotive built by its owner - was brought from its storage space in the clubhouse. The clubhouse is all brick with a large machine shop at one end, a spacious lobby-cum-meeting room, kitchen, and individual locked storage spaces for members' locomotives. The entire facility at Beech Hurst Park is designed with excellent taste, executed with faultless workmanship and meticulously maintained. The same could be said for the engines that were running that Saturday afternoon.

Almost before we realized it, evening was approaching so we returned to our hotel for a short rest and dinner. Immediately after dinner however, it was back to Beech Hurst. Did you ever hear of a "Shovelque"? Well, it's a combination of night running, a barbeque, and some contests that are designed to be as much fun for the spectators as the participants. In brief, one contest involved all locomotives hauling several passengers, each with a numbered ticket. The trains would make one or two laps full bore through the black of night, then they were all stopped and as ticket numbers were called out, passengers with corresponding tickets got off the train. I was lucky enough to be one of the last to have to alight. The engine hauling the last passenger was winner. Another contest involved accuracy in shunting a passenger car (with passenger) to a precise spot on the track. The car had an extension arm which, if the car went too far, engaged a trigger that caused an overhead bucket of water to invert! Events were too hilarious to describe, suffice it to say some drivers were more skillful than others.

As is the custom in much of England and Europe, the hotel's doors are locked at 11 PM, so we had to make a premature exit, leaving the warm-hearted friends we had made, as well as the festivities which, as we reluctantly drove away, showed no signs of diminishing.

In only a day and a half we had already had a multitude of memorable experiences, but we were just getting under way. Some further adventures in the "Model Engineer's England" will be recounted in the next issue.

TRACK OF THE SUSSEX MLS - BEECH HURST PARK



Fully rested from the "Shovelque" and other events of the day before, we arose on Sunday to find the morning crystal clear and just a little cool. First we had breakfast in the dining room of the hotel with its proprietor and the guests of the other three rooms. Then we checked out - a process completely unlike the checkout lines of a Hilton or Sheraton - then sped south over twenty miles of country road to the seaside resort of Brighton. In days of steam locomotives of the London, Brighton and South Coast Railway were designed and built at the "Brighton Works", but our interest on this day was purely to see the town, since it is so well known and we were already nearby. Being only fifty-four miles from London makes Brighton a very popular holiday attraction. There is a long promenade next to the beach, the latter being composed of comparatively large rounded pebbles known as "Shingle", rather than the fine sand we are familiar with. Also running along the beach is more than a mile of track of the Volk's Railway, a 2'-9" gauge electric tramway, with stops at various points of importance along its length. The line opened in 1883 using a two rail current collection system, so you see, the small scale modellers are right; there is a prototype example for whatever they do! The collection scheme now uses a central third rail, a la Lionel and the running rail joints are, if anything, a little worse than Lionel, causing a sharp thump to be transmitted through the circa 1900 open cars at each j-joint.

After our tram ride we looked around Brighton a bit more before heading northward against the shore-bound traffic from London to Guildford. We checked into our hotel then immediately we drove to Stoke Park, home of the Guildford Model Engineering Society. Although I had visited this club in June, (see description of track in June GAZETTE) we were particularly anxious to be there on this day because they were having an exhibition. It was a spectacular event housed in a large tent in the center of their track loop. Inside the high-walled tent, which must have been about 60 X 40 feet in size, were several long tables, each full of examples of some category of model engineering. In the center of the tent were about ten completed locomotives of superb quality, many of which had received awards in National competition. Words simply cannot do justice to the execution of minute detail, surface finish and lining of these miniatures, and yet there was such a profusion of them. Whew! On other tables there were numerous partially completed engines, representing all stages of construction, and again exhibiting excellent craftsmanship. There was a table of stationary engines, another of tools and fixtures, and still another with a long straight length of Gauge-1 track where a builder was demonstrating a model two cylinder diesel-hydraulic locomotive and a live steam locomotive. A pendulum harmonograph was in operation producing geometric designs and large showman's engine was ticking away. One of the interesting tools was a hydraulic wheel press that would automatically quarter driving wheels as they were pressed on their axle. We were guided through the exhibition by one of the Guildford members I previously met and his wife, so we had the advantage of a lot of supplementary information to make our tour more meaningful.

Meanwhile, outside the tent, passenger hauling was going strong both on the club's main track and on their portable up-and-down track that they use at fairs and similar occasions. The portable track is dual-gauge for 3-1/2" and 5" engines and is supported on triangular piers made of angle iron. I think a "Bantam Cock" was operating on it while we were there. The main track was seeing operation from the club's own 4-6-4T, a 4-4-0 "Maid of Kent", a 5" gauge "Britannia" brought up from the Brighton and Hove club, and a cute outside frame six-wheeled "diesel". A good size crowd had turned out resulting in a long waiting line for rides in addition to filling the exhibition tent with spectators. Model engineering in England is thus a self-regenerating phenomenon in which the public gets plenty of exposure to its pleasures, thus increasing the number of enthusiasts who then join clubs or form new ones that increase exposure, etc, etc.

THE MODEL ENGINEER'S ENGLAND - An Exhibition and Arrival in London (continued)

We finally left Guildford still wanting to see more and hear more of these wonderful fellows. The next morning we drove across country and through several villages back to Heathrow Airport where we returned the car. I highly recommend using Heathrow as a point to begin and end an automobile journey in the south or west of England, as it is thus possible to avoid the traffic and parking problems of Central London. The Underground is being extended directly to the airport, but at present it is necessary to take a ten-minute ride on a special bus to the end of the existing Underground terminus. In our case we elected instead to ride the top of one of airline double-deck buses to a downtown air terminal to facilitate baggage handling and so we could see something of the city.

Our hotel in London was the Charing Cross, completed in 1865 but now modernized inside. It is one of the many hotels located adjacent to, or as part of, a British Railway station. Charing Cross Station serves the east and south of Britain with third rail electrified trains primarily to suburban areas, although there is also intercity traffic to ports on the English Channel. It is on the River Thames directly across from Waterloo Station. The two stations are connected by a bridge which also has a pedestrian walk. After lunch and a band concert in a nearby park, we walked across the bridge to Waterloo, looked around for a while, then returned by Underground to Charing Cross where we got a rest in anticipation of the next day's adventure: The Museum of British Transport at Clapham. More of that next month.

MISCELLANEOUS

Connie Michalski is taking a night school course in Machine Shop Practice... John Caldwell has started actual construction of his 2-8-0 with the frame stretchers. He will have them at the Annual Meeting this month - which reminds me: if you have made anything recently, bring it along to the meeting. There will be no formal "Bits and Pieces" showing at the meeting, but this sort of thing has always heightened interest and we all want to see the latest products of the local workshops... Ben Haydon has a new Rockwell vertical milling machine... Three of the candidates for Director have become Regular Members in the past year and a fourth was asked to run but had to decline for personal reasons. This participation in club affairs can lead to nothing but good... Doug Spear has restored a hot air engine on display at the Carson-Petit show room... Malcolm Pierson has a "to do" list that grows faster than he can cross items off... The Editor contemplated printing the new membership cards in our club colors for last year: Black and Blue. But gayer colors prevailed... Ad in local paper (free plug): Railroad books - area's most complete. Jenkintown Hobby Center, Greenwood Ave. west of York Rd... Thanks to all who sent Season's Greetings. Among the most artistic was a card from Jim Sullivan depicting the warm glow of a Northern Pacific 4-8-4 in a setting in front of his home. All of the greetings were appreciated, and to all of the PLS gang, a happy and healthy 1972.

DUES

By this time you will have received, or will receive shortly, a statement for your dues in the Pennsylvania Live Steamers, Inc. It would be much appreciated by Don Crabtree if you would return the white card with your dues payment as soon as possible so we can see where we stand financially.

FOR SALE

Copper Tubing, 6-1/8" O.D. X 3/16 wall X 2 feet long. It is in the possession of Bill Scott, but for information on price contact:

C. H. Slayton, 6222 Indianwood Trail, Birmingham, Michigan 48010

4-4-0 Locomotive, slightly over 1-inch scale, brass frames, drivers 6-1/2" diam. Cast brass cab sides and front end. Contact Bill Scott for further information. Price: \$75, f.o.b. Tunkhannock, Pa. Donald M. Tiffany, 19 Susquehanna Ave. (P.O. Box 156) Tunkhannock, Pa. 18657

Tuesday morning, and we're descending in a large elevator to an "underground" station on our way to the Museum of British Transport at Clapham. The London Transport underground system comprises over 260 route miles of track, of which approximately 100 miles are actually in tunnels, the remainder being of "open cut" and surface lines. A small part of the true underground route was constructed by the cut-and-cover method used widely in this country, but most of it is in deep-level tubes that have been bored directly through the clay beneath the city. The average depth of the tubes is sixty feet, although in some places they are over 200 feet deep and one of the stations is 180 feet below the surface, hence elevators (or "lifts" as they are known there). Most of the centrally located stations employ very fast escalators for access to stations, sometimes with a rise of 100 feet in a single stage. All of our travel was during the day when traffic density is low, but during most of the system's 4000 cars are in service on headway of 90 seconds or less. If I sound impressed by the size, efficiency and convenience of the LT Underground, it's because I am; all of this and no writing on the walls!

The lineage of the underground extends from 1863 when broad gauge steam-hauled trains were first put in use on the section called the Metropolitan line. Even though these were condensing locomotives, the atmosphere in the tunnels must have been stuffy to say the least. That original section is still in use, but although passenger service was converted to electric operation early in the 1900's, steam was only finally withdrawn last June, when some 0-6-0 pannier tank "works" locomotives were replaced by you-know-what, Frank. The underground is a 4-rail system utilizing two 95% running rails and two rails for current collection, the negative rail being in the center of the track and the positive conductor in the familiar location along the outside. Isolated power pickup has been used almost from the introduction of electric traction because of improved signal reliability and lack of detrimental electrolysis effects. Copious use of color-coded signs, lights and maps throughout the system make it impossible to get lost on the underground, so, it was not long before we were deposited at our destination.

The museum at Clapham has displays of all sorts of public transport equipment including buses, trams and best of all, steam locomotives. They range in time all the way from a replica of Stephenson's "Rocket" to a streamlined Gresley A.4 Pacific "Mallard", holder of the World's speed record for a steam-hauled train. Placed throughout the large building are vintage locomotives such as a "Met Tank" built around 1864 for the Underground, the LB&SCR "Boxhill", a Wainwright 4-4-0 express locomotive with 30" drivers and a 4-4-0 Midland compound #1000. Despite the fact that these locomotives have been in service--some for over fifty years, they have been lovingly restored to their original livery with expertly rendered lining and lettering. Rods, crossheads and cylinders glow with a satiny finish; copper and brass are polished to the utmost; and cab interiors, which can be viewed from wood platforms next to the engines or in some cases from the actual footplates, are spotless and contain all the original blobs and gadgets. The room is alive with deep greens, maroon, bright blue, ochre and other colors as originally worn by the locomotives on display. The museum is in a converted bus garage with skylights all over the roof admitting sufficient light for good photographs on a bright day.

Locomotives are the main feature of the museum, but not the only ones. Queen Victoria's carriage is on display with a full-length platform outside so the visitor can see the sumptuous interior. There are several other cars on display as well as models of cars, and around two sides of the building are alcoves where railway dioramas and railway art are displayed. Throughout the room are railroad artifacts: locomotive name boards, builder's plates, signs, lanterns, gas lights, railway police equipment - it would take a special trip just to examine the small items. At one end of the building are trams and some road vehicles. There is also a lunch counter and a well stocked souvenir stand.

Unfortunately, the museum is destined to be closed soon, its locomotives to move 200 miles away to York, and the rest of the exhibits to be scattered. While it is still there however, the Clapham Museum is an exciting place to visit; it is also a sad place in some respects, too; all that beautiful machinery, and it's so quiet.

For a change of pace the next day we decided to visit Kennion Bros., purveyors of locomotive castings, steam fittings, metals and small tools. Kennions is reached by a suburban electric train leaving Liverpool Street Station every half hour. The ride takes about 45 minutes through some of the less attractive areas around London. The scenery consists mainly of apartment houses, canals, swamps, small industrial buildings and numerous semi-detached houses, some with well kept gardens and some not so well kept. A few blocks from the station at Hertford East was the store we were looking for. You enter into a room with a display case of model engineering books and a small counter containing compartments full of springs, small wheels, odd small castings and miscellaneous other parts. A door from this room passes to the main sales area where the walls are covered with shelves divided into compartments containing sets of parts for goodness knows how many different engines. Each compartment has wheel castings, boiler tube, framessteel, buffer beam angle and drawings for a particular locomotive. And they're all there: "Maid of Kent", "Panay", "Buteh", "Tich", "Fayette", "Virginia", "Springbok". Another set of shelves is loaded with sheet metal and bar stock, all in convenient sizes at reasonable prices; no cutting charge and no \$25.00 minimum charge here!

Charles Kennion is a man with a twinkle in his eye, just turned sixty-five and proud of it. His wife does the clerical work, but she was not in the morning we were there. We were shown the shop where several boilers were under construction and a helper was cutting long lengths of material into two or three foot pieces. Mr. Kennion is very proud of his business but laments the increasing difficulty of obtaining fittings like injectors which are made by private individuals in comparatively small quantities. Large orders, especially from American supply companies who enjoy a three-to-one markup on English components, take a large portion of the limited manufacturing capacity. We each bought a dandy set of miniature hex box wrenches and I got a few castings for my next locomotive (providing I finish the first one!), then we had lunch in a pub and returned to London.

There was still time in the afternoon to travel to Hemel Hempstead, home of the Model Engineer, and visit Martin Evans, to whom I had previously written about the possibility. On the underground again from Liverpool Street to Euston station. Euston has recently been renovated, to the dismay of many who cherished its classic Doric arch, but the result is quite a contrast to all the other less modern London termini. Euston is the departure point for trains to Scotland, but serves the nearby northern towns also. We were clipping along at about 60 and I thought we were doing pretty good until there was a "frump", and an express passed us as though we were stopped. Hemel Hempstead is one of a number of new "planned" towns that surround London, but unlike the old English towns the railroad station is not at the business center so we took a cab.

The M.E. offices are on the first floor (we would call it the second floor, but as in most of Europe, the English begin with the ground floor, then the first) of a modern building. We waited a few minutes at the reception room which was shared with piles of back issues of M&P magazines with girls scurrying about evidently picking out copies for special mail orders.

Mr. Evans' secretary escorted us to his large office. Behind his chair is a bookcase with reference books and what appeared to be a complete file of Model Engineer magazines. He explained that the train we arrived on had used the route of the former LNWR "Precursor" and "Cloughton" express locomotives. We chatted about the rise

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of the hobby in the U.S. and he told us that interest in live steam is increasing rapidly on the Continent, especially in Germany. Pop had some pictures of his recent engines including some of the "Phantom" at Carl Leyer's water tank that seemed to interest Mr. Evans. Before we knew it almost three-quarters of an hour had slipped by so we bid goodbye and made our way back to London.

One of the other things we discussed with Martin Evans was the model engineering events of the next few days and what might be the best course to follow. He advised us to attend the exhibition taking place at Derby. We did, and it was the greatest array of steam models I have ever seen, but more of that next month.

1971 - YEAR OF IMAGINATIVE PROGRAMS

It is time, if not past time, to make special note of the many excellent programs to which we have been treated during the year just ended. The first one, "The Model Engineer's Bookshelf", resulted in a wide variety of books on prototype locomotives and cars, shop practice and railroad history being discussed by various members who brought them for the evening. It also resulted in the publication of a comprehensive bibliography on model engineering literature. Then there were two meetings devoted to "The Think Tank", where experts, real and imagined, answered questions submitted earlier in a little tin can with a slot in the top. This program was designed specifically for tyros, but it is doubtful that anybody at these meetings did not learn something. The innovative nature of our programs took a leap in October, when we were treated to a slide show and asked, "Free Lance or Prototype?" As each slide was shown the audience had to identify the subject and decide if it was a miniature or full-size locomotive--which was often quite difficult because of the photographic skill of our Program Chairman.

The highlight of programs for 1971 was November's "Completing the Train - An Exhibit of the Car Builder's Art". Here we saw what can be done to enhance the realism in live steaming. Queen of the show was George Hoopes' 1" scale observation-business car, Highland Valley's "Naomi". The car is complete with interior carpets, furniture, lights and even pictures on the walls (naturally C.W.H. had to be in one of these). It is a twelve-wheel car, it has operating traps, and contains a wealth of detail never seen before in these parts. Several others had cars too, among them George Thomas, Bill Normart, Dan Crabtree and Jim Ziegler. No speeches that evening; just walk around and look. And for our Annual Meeting, a series of movies featuring our Labor Day visit to George Hoopes' NVRB by Ben Hayden, Bill Normart and Bob Thomas.

The Program Chairman who conceived these most interesting and novel programs was none other than Adrian Buysse. Doc, you have an excellent gift for creating out of the ordinary programs that tingle the spine of a model engineer. We thank you!

MISCELLANEOUS

Art Hacker came across a boiler, a cement-lined tank and some heating equipment that had become available, and secured it for us gratis. A bunch of the fellows moved it to the new club house early in the month... Hank Beck has contacted PE concerning recommendations on power facilities. He also has a line on some steel doors. Just what we'll need.... A new cooperative effort has been started by Frank Watson, Bill Normart and Jim Ziegler for the manufacture of car trucks, frames and bodies for their locomotives to haul... Part of the agreement Carl made with PE guarantees us an option to lease land under transmission lines next to our new property when the present lease expires.... Dues are due, NOW.

Although it would mean a long day, we decided on Friday to travel to an exhibition at Derby with a stop on the way at Birmingham, to visit A. J. Reeves & Co., the fastest rising supplier of model engineering equipment in England. We availed ourselves of the special British Rail "Second Class Day Return" fare of £2.55 (\$6.25) for a round trip between London and Birmingham. The only restriction on use of this ticket is that you must travel after 9:30 AM but this presented no problem; we boarded the 9:45 from Euston station for the trip of about 100 miles in slightly over an hour and a half (including two stops). Service is excellent on this electrified route of the former London and North Western - trains leave from both directions at half-hourly intervals all day.

It is becoming common practice on British Rail for a Guard (Conductor) to collect tickets on the trains, although many intercity trains, and all suburban services, operate on the older system where you show your ticket to an inspector at a barrier before boarding the train and then surrender your ticket at another barrier at your destination. The reason for the older method of course was the widespread use of compartment carriages that did not have a longitudinal corridor, making it impossible for a guard to walk through a train. Non-corridor carriages are still used on suburban lines but intercity trains now use either "corridor carriages" or "open saloons". The former have individual six-passenger compartments along one side of the car with a connecting corridor along the other (station) side, while the open saloon is made on the same basis as our usual coaches. Many of the BR carriages have elegant interiors of wood panelling, but the newer ones are more functional aluminum and fiberglass. As the climate doesn't demand air conditioning, the upper portion of each window is a sliding ventilator - just big enough to poke a head through to see what is going on at station stops, saying goodbye to friends or shouting to football rivals!

We were completely unfamiliar with Birmingham so we decided to go to Reeves by taxi. After we had cruised up and down Moseley Street without finding Reeves, I began to learn something about the city: There is a Moseley Road and a Moseley Street. We arrived at the store and were confronted with a sight that would amaze anyone from the U.S. Even with three men behind the counter, there were customers waiting to be served! Is model engineering popular in England? The short wait gave us a chance to look around at the lathes, brazing equipment, castings, Loctite display and all the other juicy items that filled the store. Small parts and tools are in cabinets behind the counter. Copper tubing and sheet metal stock is on the second floor, where there was a man working full time (at least while we were there) doing nothing but cutting up material for waiting customers. I was one of the ones he was cutting for, and they did not seem to mind a bit sawing off a 6" length of 5" copper tubing for £2.15 (\$5.25) that I will need for my new smokebox. I also bought a 6" length of 4-3/4" O.D. tubing; try getting that in the U.S. Oh yes, there was a cutting charge for less than one-foot length" 37 cents!

One of the proprietors, Alec Farmer, heard our strange accents and in spite of the rush took time to show us some examples of his specialty, a boiler for "Tich", one of six he had just completed, and a partially finished one for a 5" gauge locomotive. When we finally had seen all there was to see we reluctantly left, returning to the Birmingham New Street station by bus.

Derby (pronounced "Darby", just as Hertford is pronounced "Hartford") is about 33 miles from Birmingham. This is the very heart of the Midland Railway system, and in fact is today a prime center of engineering development for the British Railways. So it was back on the train and be glad, for chilling rain had begun and the sky turned a dismal gray. At Derby, after a stop at a local beermey for some soup, we head straight to Queens Hall, a short walk from the railway station, where the Derby Society of Model and Experimental Engineers were holding their exhibition.

We were warmly received at a desk where we registered and obtained a comprehensive 24 page catalog that listed all exhibits, described the aims and accomplishments of the sponsors, and had a liberal sprinkling of advertisements for juicy model engineering items.

The main room of the exhibition was a sight to behold! There were tables all over with tiers on which the models, mostly live steam locomotives, were displayed. Representation of gauges was about evenly divided, with about 25 5" gauge locomotives and an equal number of 3-1/2" gauge machines. Star of the show was a Great Western 2-6-2 tank engine that had won the Championship Cup at the 1971 ME exhibition. It would be senseless to attempt a detailed description of the rivet layout, backhead fittings, and general finish of this locomotive other than to say it was superb throughout. The versatile gentlemen who built this engine also displayed a twin cylinder I.C. engine, a merchant ship complete with operating steam winch (the bore of the winch cylinders was about 1/8"), a 3/4" scale "Britannia", and a chassis for a second 2-6-2T. And speaking of the "Britannia" class 4-6-2, there were some fabricated parts built to scale even where the pieces will not be visible. Also on display were parts for the Midland single "Princess of Wales" of the series just concluded in ME, that were made by Dennis Monk. Dennis arrived shortly after we did and was our guide and gracious host for most of the afternoon as well as a second visit to Derby made a week later. He has drawn on his Midland background for his recent series on tenders in ME.

A very striking locomotive was a 5" gauge streamlined LNER A-4 Pacific. Less flamboyant, but nevertheless a perfect jewel, was a 5" 0-4-2 "Lion" with wood-lagged boiler and wonderfully finished mechanism. Doc Buyse would have been pleased to see the G&SWR 0-6-0 #5, alias "Butch", one of several we saw during our trip. There were not only locomotives however, there was a whole table of operating stationary engines, there were traction engines, small gauge electric layouts and displays, machinery displays, books and postcards for sale, and a display by the manufacturer of a 10-1/4" gauge Alco 4-8-4 just being completed for use on an estate in England. (Needless to say, this type engine is a "Barkshire" in England!)

As we were about to leave, the man known to readers of the Model Engineer as "Northerner" arrived to see the exhibition and gather material for a report in ME. He is a very engaging person and chatted with us until we could just stay no longer if we had any hopes of returning to London at a reasonable hour. So we rushed back to the station and just made our train for the return journey. This was one day that would be etched in our memories forever, but we had been in England only one week with still another nine days to go. Next month: A visit to another club track, the Science Museum, and other "points of interest".

THE MODEL ENGINEER'S ENGLAND - The "London Shops and a Day at Chingford" by the Editor

The day following our trek to Birmingham and the exhibition at Derby was one of relaxation and decidedly slow pace. We rode the underground from our hotel at Charing Cross to a busy thoroughfare called High Holborn, where Beaties of London is located. Beaties is one of the most prominent model businesses in London, if not all of England. I learned later from Bob Tinkler that the store we visited stands at the site of the original Bassett-Lowke shop in London. The latter firm, incidentally, offered an outstanding variety of toy and semi-scale steam models of locomotives, fire engines, boats and stationary engines. In 1902 you could buy an alcohol-fired Gauge 1 locomotive for as little as \$1.50, and later, a 2-1/2" gauge 4-4-0 with double acting cylinders, reversing gear and lubricator for \$15.75. But such was not the case in 1971. Nevertheless, Beaties was an interesting place with electric trains lining display cases and stock shelves. Being a Saturday morning they were quite busy, so we had plenty of time to look around. Beaties carry a few live steam models for the rich grandparent trade and also seem to do a brisk business in used train sets. In general the character of the store is reminiscent of Polk's in New York.

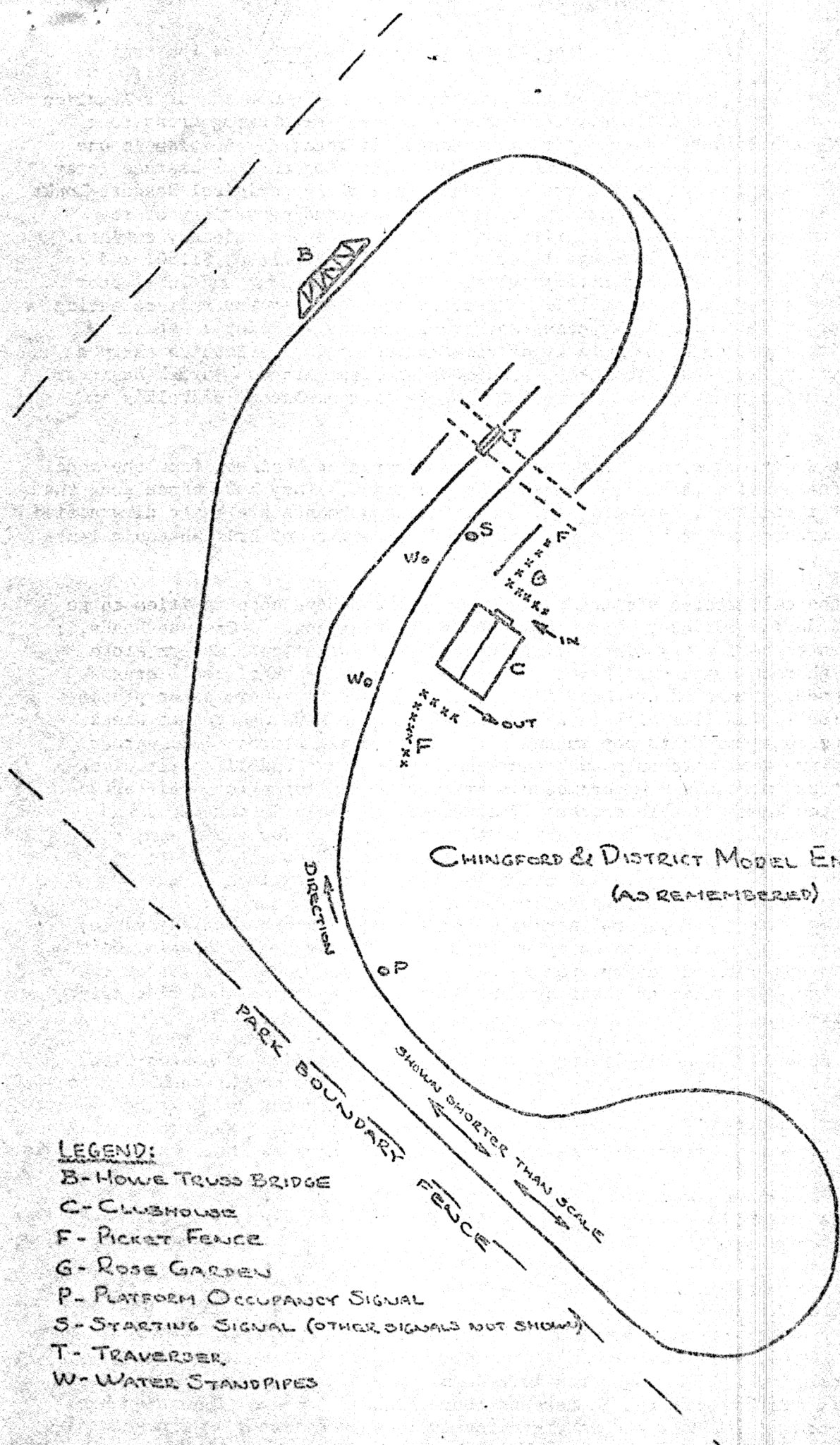
We next stopped in at Gamages. At one time this company attracted business from the model engineers with very inexpensive lathes and other shop equipment. They have since gone the way of Korvettes, but their tool, hardware and automotive departments are quite diversified and we spent a considerable amount of time in interested comparison of British equivalents of familiar products.

Although these were the only stores visited on this day, we did have opportunities to go to a number of others during our stay that are worthy of mention now. One was Bonds, an old firm that seems to hardly try since it moved its sales outlet to a modern store in one of London's high rent commercial areas. They have a good stock of small steam fittings but only a modest range of castings and material. However, their sales people are friendly and obviously familiar with tourist enthusiasts who have managed to sneak away from the tour bus long enough to pop in and buy a Keats angle plate. Just across the street from Bonds are tool merchants Buck and Ryan. Here you stand literally elbow-to-elbow with carpenters, masons and mechanics who are purchasing tools for their trade from harried and not too knowledgeable clerks. The variety of tools is excellent and prices, while not as advantageous for Americans as they were only a few years ago, are still quite attractive. Milling cutters are about one-half of the domestic cost; expansion reamers, measuring instruments and precision squares are typical of the reasonable values obtainable. They also have handy tools that are unobtainable here as well as a display of machinery and general hardware items that make browsing enjoyable; and if you are lucky, you will be waited on by Mr. Ryan himself - the only one in the place who knows the location and price of every item in the store. What you can't get at the main store can probably be obtained at their branch, just a short underground ride away, and run by another Mr. Ryan.

An interesting model shop is BEC Model Stores, to be found in a section of London with the unlikely name of Footing Bec - also reached by underground. Pop bought an HO kit for a double deck tram. The kits are designed and packed by the proprietor and feature excellent motor driven gear drives. Another interesting model shop that is more centrally located is Hamblings, where there are kits galore as well as catalogues, magazines and books.

On Sunday we followed an unusual route to the Chingford and District Model Engineering Club. It began with a stroll to the Thames (our hotel was only one block away) where we boarded a boat that took us to the Tower of London. We expected to go into the Tower for what would have been one of our few lapses into traditional sightseeing, but it was not scheduled to open for several hours so after a snack we went, by underground of course, to Liverpool Street Station where we boarded a suburban electric train for the short ride to Chingford. When we arrived we asked a man carrying a 3-foot wrench who had been on the tram with us if Ridgeway Park was within walking distance or if we should take a bus. He directed us to a cab, since the busses run infrequently, but when it was obvious that the cab driver was off duty, he offered to take us there himself! He was a maintenance man for British Rail coming off duty and very generously took us directly to the gate of

SPORTS
FIELDS



CHINGFORD & DISTRICT MODEL ENGINEERING CLUB
(AS REMEMBERED)

- LEGEND:**
- B- HOWE TRUSS BRIDGE
 - C- CLUBHOUSE
 - F- PICKET FENCE
 - G- ROSE GARDEN
 - P- PLATFORM OCCUPANCY SIGNAL
 - S- STARTING SIGNAL (OTHER SIGNALS NOT SHOWN)
 - T- TRAVERSER
 - W- WATER STANDPIPES

the park where the Chingford Club have their track. The park itself is rather large and is the center of community sports and recreation.

The track was originally built in 1946 as a straight down-and-back elevated structure 150 feet long. It was subsequently enlarged and has recently been rebuilt. The present track is 1,000 feet of 3-1/2" and 5" gauge in the shape shown approximately in my sketch. It is constructed of conventional rail screwed to wood ties. The ties are in turn supported by lengths of square steel tubing formerly used by the railroad for switch and signal rods. The tubing spans vertical concrete columns of excellent proportion to produce a structure that is strong, has fine appearance, and gives a smooth and quiet ride. One of the features of the railroad is a large Howe truss bridge made of angle iron.

The club's own engine was in operation, as it has been almost every Sunday of the running season for the past twelve years. It is a maroon 4-4-2 that is maintained in immaculate condition by the members. Other engines in steam were a 5" gauge 4-6-4 "Halton" tank with a nifty water pump, an award winning GWR four cylinder "King Edward VIII" in 3-1/2" gauge, an inside cylinder 0-4-0 of unusual design brought by a visitor from Wembley, a really excellent 5" gauge 1-1/2" scale Peckett 0-4-0 saddle tank industrial locomotive, and the ubiquitous "Maid of Kent" unfinished, but pulling its share of passengers. Another interesting engine was a 5" gauge tank engine with a water tube boiler and outside Stephenson valve gear. All of the engines carried considerable small detail with excellent workmanship in every case.

Use of the park by the club is contingent on a certain amount of passenger hauling, and since a reasonable revenue is obtained in this endeavor, it is accomplished with efficiency and enthusiasm. Most of the trolleys (riding cars) are owned by the club, and we were privileged to see a new batch put in operation for what I believe was the first time. They had heavy demountable trucks and depressed-center bodys made of varnished wood. Valances, also of wood, extend out and down from the bodys so foot rests are unnecessary. Trainloads of passengers who have just completed their trip arrive and discharge their passengers, then pick up a new group who have paid 2-1/2 pence (6-1/2 cents) at the "booking office" for their ticket. While this action is taking place the engine driver fills the tender if necessary and attends his fire, so that when the guard gives the starting signal - an illuminated letter "R" adjacent to a three aspect signal - the train moves off smartly.

The entire track is well protected by a system of color light signals of scale appearance mounted on concrete pedestals about one foot high. Approximately 100 feet ahead of the station platform is a numeric signal that displays a "1", "2" or "3", depending on the number of trains occupying the station, permitting the driver to adjust his approach accordingly. The signals are removable from their pedestals; the last train of the day carries a crew that removes the signal and fastens an aluminum cover on the pedestal to protect the electrical receptacle.

Signals and other accessory equipment are stored in the clubhouse, a freshly painted building about 10 x 12 feet in size. One end of this structure is the "booking office" where passenger tickets are sold and inside are nicely furnished rooms for storage and, above all, facilities for brewing the "engineman's friend", a hot cuppa. Apparently the effects of neighborhood children (?) are felt here too, for the Chingford Club has found it necessary to apply barbed wire to the roof to discourage the kiddies. A white picket fence is strategically located to regulate movement of arriving and departing passengers. The entire neat facility is embellished with nothing less than a typical English rose garden.

The men we met at Chingford were avid enthusiasts who, although expressing great individuality in their various locomotive designs, were also able to blend their innovativeness, time and effort to produce a thoroughly enjoyable railroad. Needless to say, we were sorry to see dusk approaching, but it was time to leave and so we accepted an offer for a ride back to the underground to Walthamstow, then to the hotel and an evening of retrospect on the day's events and some anticipation for events still to come.

One of the most interesting places for a steam enthusiast to visit is the Science Museum in the South Kensington section of London. As usual the Underground provided our means of transportation. Admission to the museum is free - just great for an inexpensive outing with the family on a Sunday afternoon or for repeated visits when building a model of one of the exhibits.

And what exhibits! The front section of the first floor is devoted entirely to stationary steam engines. Some are small models in glass cases while many others are full-size reproductions or restored engines removed from actual service. Many of the engines are driven by electric motors so the operation of the mechanisms can be studied. The full-size engines are truly impressive, lacking only the sound of steam and the smell of hot oil to complete the effect. Among the displays is a Cornish pumping engine housed in a sectioned building to illustrate the construction of this prolific machine, a rotative beam engine designed by Watt in 1788, a Maudslay table engine, mill engines of a later era, and a high speed steam-powered dynamo. The displays are distributed throughout the room in area in a logical grouping. Extending above the exhibit room are balconies where other scientific equipment is displayed. Numerous windows admit sufficient light for photographing the engines, but a well stocked store of books and pamphlets describing and illustrating the contents of the museum really makes a camera unnecessary.

Moving toward the rear of the museum one encounters an astounding display of railway models and prototypes. Here is the original "Rocket", dating from the Rainhill trials of 1829 when its 30 mph speed settled the horse versus locomotive with finality. Pre-dating even that antique is "Puffing Billy", acquired by the museum in 1862 after it had performed on colliery railroads for fifty years. There are more modern locomotives on display too, including a Great Western "Castle", an early electric locomotive and a 1550 hp Deltic diesel-electric. There is also a car from the underground, a fully equipped signal box (tower) and a complete booking office (ticket office). To all this add a collection of models with superlative detail in about 1" scale, and you will understand why only a fraction of the Science Museum's exhibits can be seen, much less absorbed, in one day. We only briefly browsed through the display of firefighting apparatus and reluctantly bypassed exhibits of old carriages, automobiles, electronics, printing, astronomy, hology, ships and so on and on.

In short, if you ever go to England, do not fail to visit the Science Museum at least once.

There is another museum in England, not so lavish as the Science Museum, or with as many locomotives as Clapham or York, but nevertheless one that is outstanding for the quality of restoration and legendary significance of its six locomotives. It is the Great Western Railway Museum at Swindon. Swindon is a railroad town like Altoona is a railroad town. It was near the geographical center of the GWR London-Bristol line and was the hub of locomotive designs possessing singular efficiency and performance capabilities. The railway was opened in 1838 using a gauge of 7 ft.-0-1/4", and by the year 1847 was operating trains at over 60 mph. Eventually the Great Western, after standing virtually alone in its advocacy of broad gauge, succumbed to the narrow gauge (4'-8-1/2") forces. By 1866 the loss of the "Battle of the Gauges" was acknowledged, although vestiges of 7' gauge remained until 1892. The conversion to "standard gauge" was accomplished in stages with virtually no interruption in train service. One notable feat of relaying occurred when 177 miles of track was converted in just two days.

The GWR collection is housed in a converted chapel. Inside is a replica of "North Star", the 2-2-2 locomotive that hauled the inaugural train. There is also an 0-6-0 goods (freight) locomotive, the record-breaking 4-4-0 "City of Truro", and "Lode Star" - an engine that was in service from 1907 until 1951 and which was the forerunner of several standardized locomotive designs on the GWR. Another interesting exhibit is an 0-6-0T with its smokebox door open and the smokebox interior painted white to enable close study of the flue and piping. The painting of these engines is just beautiful; the shaded lettering is just indescribable in its proportions and skill of execution.

Another pleasant aspect of the GWR museum is the hour and a quarter train ride from London's Paddington station to Swindon. We were again treated to modern coaches, but the long delays at signal checks on the way to Swindon left this portion of the journey with something to be desired.

I had told Pop about LBSC's track still being intact. As a long time reader of Curly's M.E. articles he was interested in making a "pilgrimage", as he called it, to Purley Oaks to see it first hand. Besides, it would give us an opportunity to utilize still another London railway terminal, this time Victoria Station. Victoria is one of the most vibrant rail centers one could imagine, providing not only southern suburban and intercity service, but also handling boat trains with cars destined direct to distant points on the continent. There are also several trains that connect with channel ferries so the station bustles with all sorts of travelers.

Our trip was a short one, however, and in less than forty minutes we were descending the steps from the high level platform at Purley Oaks. There are comparatively few single homes in Britain, much of the housing being in the form of two or more units in a single building. Such is the case on Grange Road where there are a series of six-unit dwellings. Behind the one where LBSC lived is a large grass plot between the house and the old London Brighton and South Coast Rwy main line. The 2-1/2" and 3-1/2" gauge track is elevated on concrete supports in an oval perhaps 200' long. Accessory equipment includes his famous semaphore signal and a water tower. The track is beginning to show its age.

Having glimpsed the scene of so many episodes in live steam history, we strolled back to the station to await the train for our return to London. While we were waiting the "Brighton Belle", posh train on the London-Brighton run whizzed through in all its brown and cream livery. (It was discontinued this month.) Our train, one of the third rail electric locals (known in England as a "stopping" train) did not return to Victoria, but went to London Bridge station then threaded its way amongst the city rooftops to Waterloo thence to Charing Cross station - at the front door of our hotel.

MISCELLANEOUS

Note the time and day of the May Regular Meeting... Charlie Rowland and his wife are going by train to Cincinnati where they will board the "Delta Queen" for a trip down the ole Miss... Dan Crabtree has become a member of the Perkiomen Valley Watershed Association to keep in contact with people and plans in our vicinity... Track plan #99 was approved at the April meeting... Got a telephone call from Buck Clayton. He will be in this area over the Memorial Day weekend. Buck says he has been working on some of the boiler plates for his free lance British 0-6-0T. He made a recent visit to a steam museum near Michigan City off Route 39 where they have an operating steam crane, a uniflow stationary engine, a tractor, saw mill, small gauge live steam tracks and 2' and 3' narrow gauge... Several PLS members were on the Steam Tours trip to Hershey and Harrisburg. I don't know how many were on the Saturday trip, but at least twelve went on Sunday. Ex-Reading 2102 had an easy job with the sixteen or so cars. The Editor and wife had an opportunity to ride about two-thirds of the way in the business car "Brothers Two". The car was formerly #2 on the NYC and later #7 on the PC. The dining room of the car opened into the lounge area with folding doors between so the lounge could be closed off if necessary. 2102 clipped along between 40 and 45 mph most of the time, picking up to over fifty part of the way back... Ben Haydon is stopping at the B&O Museum on the way South during his vacation... George Hoopes has made one pair of drivers on his "RDC" 4-8-2 blind to assist traversing some sections of the Highland Valley system... Bill Normart has come up with a proposal for utilization of the club buildings... Invited by the NLS, George Hoopes, Dan Crabtree, Bill Normart and Ade Buyse offered a stunning movie and slide presentation at their March meeting featuring the construction of George's 1" scale EVRR. We hear their program was received enthusiastically by an unprecedented turnout of Jersey live steamers.

THE MODEL ENGINEER'S ENGLAND (continued)

during the running season and assist with heavy maintenance in the winter when the line ceases operation. No. 5 was reboilered in 1958 but is otherwise essentially "as new".

Passenger cars on the RH&DR are just wide enough for two to be seated side-by-side. They are of varied seating arrangement but carry about twelve passengers in compartments, some of which are closed and some open. Our car had sliding doors that could be left open for full effect. Since the tracks are on four foot centers, however, it is inadvisable to stick one's head out.

We were soon on our way over the double tracked line between Hythe and New Romney, a distance of 8-1/4 miles. As we left Hythe we passed the engine shed where the ten locomotives owned by the railway are stabled. Then it was past small villages, over marshland, and by farms to a brief stop at Dymchurch. After Dymchurch and a few more stops we arrived at New Romney, where this particular train terminated. "Hercules" was uncoupled, run past the train, reversed on an Armstrong turntable and recoupled to other end of the train, all very speedily and with no lost effort. New Romney station houses a large O gauge layout but we decided to stay outside and watch the train depart for its return to Hythe, intending to continue onward with the next train from Hythe. In the meantime we nosied around the station and yard tracks, looking things over.

Before long the next train from Hythe appeared from around a bend, rods flashing, and with apparently no intention of stopping. Finally, only a short distance from the station platform, the driver closed the throttle and applied the vacuum brakes for an astounding display of train handling that brought the train to a halt at precisely the intended point.

If "Hercules" could be called "rugged", then this latest engine, "Southern Maid" must be "beautiful". "Southern Maid" is a 4-6-2 painted green with a glossy black smokebox and chocolate colored cylinders. Except for the wheel arrangement and 25-1/2" driver diameter, this engine is mechanically identical to "Hercules". Although she is the same age as the Editor, it must be admitted that she has withstood the ravages of time far better, and will go on to do infinitely more work in years to come!

Soon after we boarded the train for the continuation of our trip, "Southern Maid" got us underway, and shortly we were up to the normal speed of about 25 MPH. The line is single-tracked beyond New Romney to the end of the RH&DR at Dungeness. Most of this route is over an area so thoroughly covered with shingle that the track is virtually laid right on the ground, ballast having previously been deposited by nature. Shingle is everywhere: local roads are made of it, garden walls are made of it, some houses have lawns of shingle in decorative patterns, and other houses appear to be almost completely constructed of it. Stops were made along the way at small villages and grade crossings to accommodate local travelers, but it was not long before we arrived at Dungeness.

Dungeness is a strange place, with shingle, sand and dry grass as far as the eye can see. It is the site of two lighthouses, the second one being necessitated by the recent construction of an atomic electric generating station that obscures the original light. We did not join the other passengers in the restaurant at Dungeness station. Instead we walked to the head of the train to admire the simmering locomotive and talk to the young driver.

Finally it was time to leave for the return trip. Trains are turned at this end of the line on a large reversing loop which is entered and exited through a single spring switch. The long loop afforded a good opportunity to observe the graceful locomotive in action, then we eased through the spring switch back onto the main line toward New Romney and finally, Hythe. Almost before we got to the head of the train, "Southern Maid" was uncoupled and backed down the escape track toward the shed.

I mentioned in a previous installment that while in London Pop and I stayed at the Charing Cross Hotel, carefully selected for its proximity (150 feet) to an Underground station as well as being within convenient walking distance of the River Thames, the government buildings and Palace, Trafalgar Square, and the restaurants of Leicester Square. It is a hotel I can highly recommend for good service and, by London standards, moderate rates; hotel accommodations in London are scarce so they tend to be expensive, even by New York standards. A further advantage of our location on this particular Thursday morning was that it enabled us to bound out of the front door of the hotel and make a U turn into the front door of Charing Cross Station. Today we were making an eagerly anticipated journey to the famed Romney, Hythe and Dymchurch Light Railway, a 15 inch gauge railway nearly 14 miles long that operates steam hauled trains in actual revenue service.

The RH&DR tracks skirt the cliffs of Britain's channel coast not far from the well known cities of Canterbury, Dover and Hastings. The first part of our trip was on a third rail electrified line between Charing Cross and Folkestone. This was a pleasant ride through the Kent farmlands during which we met two girls from Los Angeles who were on their way to a four month tour of the Continent. They couldn't believe that anyone would actually travel all the way to England just to ride trains (nor can almost anybody else, for that matter). The seventy or so miles was covered in eighty minutes including two stops, and we arrived at Folkestone just in time for lunch at the "local".

After lunch, and while waiting for a bus to convey us to the terminus of the RH&DR at Hythe, we had an opportunity to note the name of a hotel that advertised dinners and decided to stop there on our way back in the evening-of which more later. Also noticed was a sign right on the main street of town directing interested parties "To The Model Boat Pond." There wasn't time to investigate, but it was yet a further illustration of the high regard with which model engineering is held in England. Soon the bus arrived and after a short ride through some coastal towns we arrived at Hythe and the Romney, Hythe and Dymchurch.

Service on the RH&DR was inaugurated in 1927 but the line was not completed to its present length until 1929. It is laid with 24# rail to a gauge of 15-1/8" on conventional wood ties (sleepers) with ballast of shingle - rounded stones found in huge quantities along the coast. Rail joints are staggered in contrast to customary British practice of locating joints opposite each other to minimize side sway.

The railway depends to a great extent on tourist traffic for its revenue but it also does a fair business with patronage from local residents. We saw a number of school children using the train as well as mothers with their children going shopping. It took an active part in WW II, not only hauling troops and supplies to military bases on the coast, but also hauling material for a pipe line between England and France. In fact, the war almost led to the demise of the railroad because of the strain on its facilities and lack of maintenance. Although it has never fully recovered, the level of maintenance today seems quite high.

A small building attached to the Hythe station houses the booking office and a souvenir shop. The station itself is a shed over two platforms accommodating four stub tracks with appropriate locomotive escape tracks. As we entered, our train was already waiting with engine No. 5 "Hercules" in charge. Built by Davey Paxman in 1926 to a Henry Greenly design, this shoulder height 4-8-2 seemed impatient to get its train rolling. Everything about this locomotive, finished in maroon, lived up to its name. The engine has 5-1/4" x 8-1/2" cylinders and piston valves 3" in diameter; Greenly was not kidding about unrestricted steam flow! Drivers are 19-1/2" in diameter, grate area in the Wootton firebox is 4.7 square feet, working pressure 180 p.s.i., and tractive effort is 1838 pounds. The paint and the finish on the rods and valve gear appeared every bit as fine as many of the museum pieces we had seen previously. Drivers maintain their own engines

THE MODEL ENGINEER'S ENGLAND (continued)

By 6 PM we had arrived back in Folkestone and had alighted from the bus almost directly in front of the Garden House Hotel - the one whose advertisement for dinner attracted our attention earlier in the day. However, it is common in England to have dinner rather late, so we were disappointed to learn from a lady at the reception desk that the Garden House did not serve dinner until 7 PM. A man at the desk offered to direct us to a nearby restaurant that was open. As we stood there I noticed a ham radio QSL (verification card) with the call letters G40G, and the name D. Gordon. When the man came from behind the reception desk to direct us to the restaurant I asked him if he was Mr. Gordon and he was astonished that I knew his name until I explained that I was also an amateur radio operator and had seen his QSL. Well, he took us outside and pointed out the restaurant, then on second thought offered to have the kitchen make us sandwiches and coffee if that would satisfy us. It certainly would, so we washed-up while he disappeared into the kitchen. But then he said "It is getting so near to our serving time, why not just have a drink with me, and by then the dining room will be open." We accepted his offer, but instead of going to the hotel bar as we expected, we went through several doors and passageways, and lo, we were right in the man's living room! We met his wife, discussed our trip, saw his ham rig and before we knew it, it was dinner time. After dinner a request to the waiter for our check brought the reply that, "Mr. Gordon would like you as his guests." And as if all that was not enough, we were then invited to have coffee and read the newspaper in the hotel sitting room while Mr. Gordon checked the timetable for trains returning to London. Then to top it all off, he drove us in his car to the station!

The return trip seemed long because we were on a stopping (local) train and we were both tired. But no matter; we had ridden on what is surely the most unique steam railway in the world, and had been recipients of grand hospitality from a fine gentleman.

(Note: Some of the technical data used in the description of the Romney, Hythe and Dymchurch Railway was obtained from the booklet "World's Smallest Public Railway" by P. Ransome-Wallis, published by Ian Allan Ltd, London.)

INVITATION FROM NJLS

The following letter was passed along by Adrian Buyse:

Dear Adrian,

The New Jersey Live Steamers would like all members of the Pennsylvania Live Steamers and their families to join us for a day of Steaming and Fellowship.

The date is Sunday, July 2nd. The holiday traffic should be at its slowest at this time. NJLS will provide hot dogs and coffee, so bring your own beer.

This invitation is being extended to Eastern Live Steamers and Long Island Live Steamers so let's have a good crowd of 'Live Steamers'.

Very truly yours,

John P. Muldowney, President
New Jersey Live Steamers

This is a very kind and timely invitation that we are happy to accept. Try to be on hand. Let Doc Buyse know sufficiently in advance if you intend to go so he can in turn notify John. A map was published in the GAZETTE last July showing how to reach the NJLS track. Copies can be obtained from the Editor.

In an earlier edition of these chronicles, where I described our visit to a model engineering exhibition at Derby, I mentioned a gentleman by the name of Dennis Monk who had taken a great deal of time to escort us through the exhibits. I had later mailed a copy of the GAZETTE to Dennis and by virtue of his prompt reply and the efficiency of H.M. Post Office, I received a reply only three days later that included some recent issues of the Derby SMEE "Blower", a diagram of their track layout, and an invitation to visit them on the following Saturday.

[I must take some time here to praise the British mail service, where a service is for the convenience of the public rather than the "Public Servants". It is normal to be able to mail a letter in London in the morning and have it delivered in town that afternoon. I have personally mailed a business letter at 4 PM and then met the recipient the next morning at 9 AM with letter in hand! There is even a special subway under London for mail only. and railroads are important carriers.]

The invitation to visit the Derby track was hastily accepted with final arrangements made by telephone. On the appointed day we went to St. Pancras station, an appropriate point for the beginning of our trip since this station was opened in 1867 by the Midland Railway, and today we were going right into the heart of Midland territory - Derby. We departed on the 10.05 for a two hour trip that took us through St. Albans, Luton, Bedford and Leicester. Round trip fare was only £2.85 (\$7.00). Upon our arrival at Derby we walked across the street to the Midland Hotel where we had a very large lunch in preparation for our busy afternoon.

Dennis was waiting for us as we came out of the hotel and suggested that we stop at his home to see his shop and meet his wife, who would accompany us to the track. His compact shop is in a garden shed separate from the house, this necessitated, as in the case of most British homes, by the absence of a basement. Dennis is Area Inspection Engineer for British Rail, having started with the Railway as an apprentice in the Locomotive Development Drawing Office at the time when the "Britannia" Pacific locomotives were being designed. His background with the Railway and his interest in the industrial archaeology of the region made for interesting conversation between his house and the track.

The track is located in a rural area outside Derby known as Mowley Manor. It is a rather unusual track from the standpoint of the usual British installation in that it is at ground level, using conventional sleepers (ties) and ballast, and with the further advantage that points (switches) can be easily accommodated. Gauges of 3½" and 5" are provided in a 1089 foot layout in the form of a folded figure-eight, as shown in the sketch. Rectangular steel is used for rails; all switches are dual-gauge. There is a tunnel that is a fantastic bit of the bricklayers' art, being made of two layers of brick with a semi-elliptic cross-section, and on a curved section of track at that! At its portals, the tunnel section is outlined with black bricks which are, in turn, surrounded by a red brick facing of about six feet on a side with capped decorative trim on each corner. The second layer of brick was being laid-up on the outside of the tunnel while we were there: I have since learned that the job has been completed with a covering of earth left over from another project. There are two bridges, one an open truss about ten feet long made of tubular steel, the other a short girder bridge with scale-like features across a culvert. In contrast to our practice, the turntable and its radial tracks are all at ground level, but there are sloping sections to elevated unloading and steaming tracks. Along the right-of-way are strategically placed signs describing the features of the line such as, "CLOVESWOOD SUMMIT - 431 feet above sea level". Also, in the station and yard areas there are at least six upper-quadrant semaphore signals built to exact scale and realistically actuated by motors in their bases. The club is now in the process of installing a signal system over the entire line using color (oops- "colour") light signals. And finally, there is an "Enginemen's Hostel" where you can always get a cuppa, and a nicely paved station platform with the inevitable white picket fence. To top this off, this winter a 1/3-scale signal box of Midland design has been built across from the station.

I don't recall all of the locomotives that were in steam, but among them were a 3½" gauge LNER Gresley A3 Pacific, a 5" gauge "Maid of Kent" with inside cylinders and valve gear, an LMS 4-6-0 and a tank engine. These engines hauled passengers on cars with raised seats and footboards at the sides so that passengers were seated in a normal upright position with feet flat on the low-pitched footboards. Each car accommodated four or five children in this manner with very infrequent derailments. Drivers sat similarly on raised seats. There were also several locomotives on the turntable tracks, including a G&SWR 0-6-6T "Butch" in a very attractive ochre color, the superb 5" gauge British Rail ex-GWR 2-6-2T by Roy Amsbury that had won the Championship Cup at the 1971 M.E. Exhibition, an LNER 3½" gauge 4-6-0, a second small tank engine, and the completed chassis for none less than an ALCO 2-8-0 !

Late in the afternoon we were treated to sandwiches and cake with tea by Mrs. Monk and Mrs. Amsbury. Then it was time to leave for our train back to London, where we arrived about 8 PM just a little bit tired, but glad to have visited a miniature railroad in England that is as close in construction, surroundings and general atmosphere to PLS as you are liable to encounter anywhere.

Next month: We visit the Malden and District SME in the concluding chapter of this series.

THE PC AUCTION

The New Yorker Magazine, ever up on what's going on, carried some interesting observations on this recent auction. They appeared in "The Talk of the Town" under Notes and Comments in the April 8th issue.

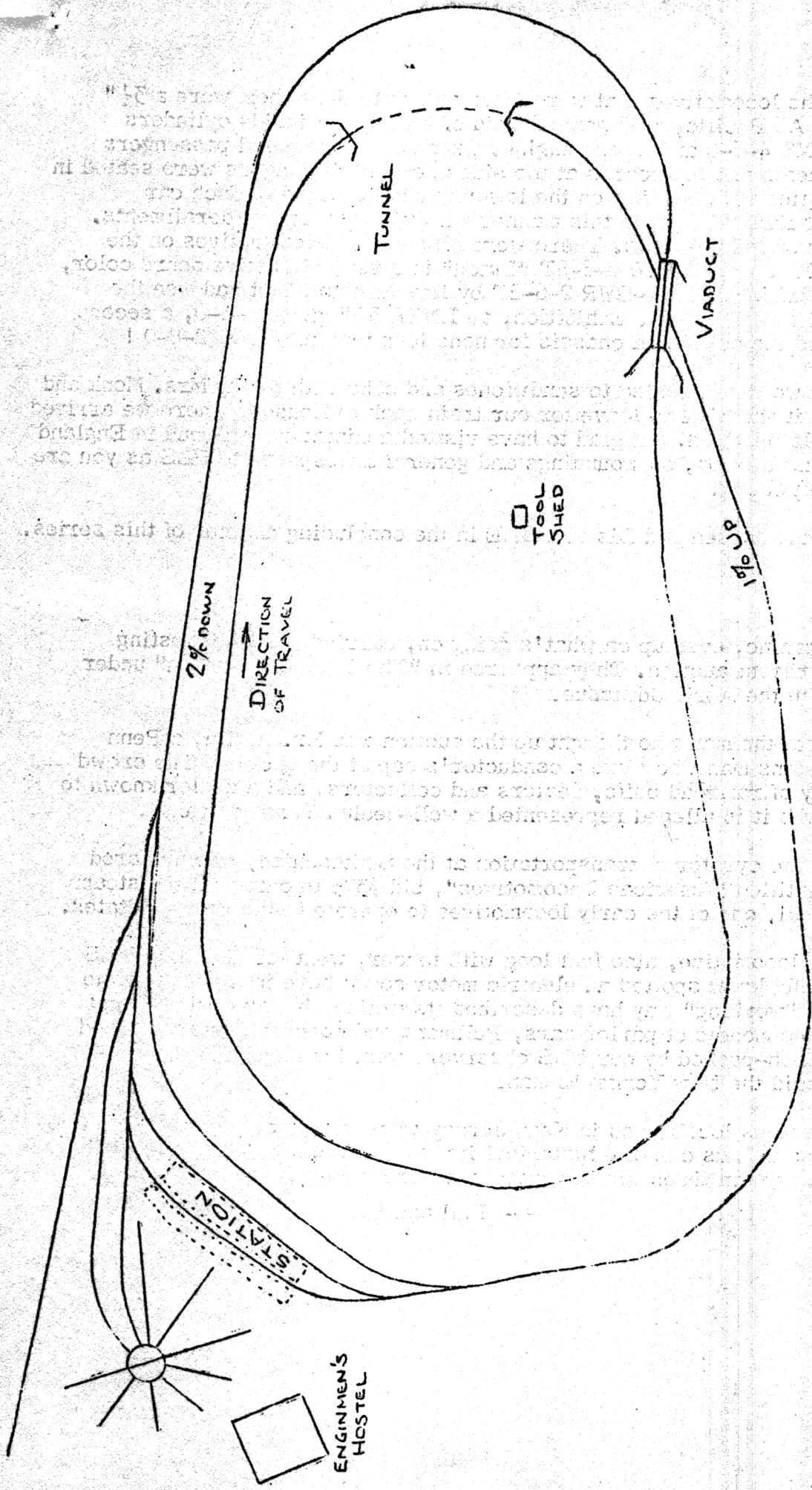
Inter alia we learn that the man who thought up the auction was Mr. Alotta, a Penn Central Public Relations man who wore a conductor's cap at the auction. The crowd was composed largely of railroad buffs, dealers and collectors, and a dealer known to the trade as DC-7, who it is alleged represented a well-heeled Texas rail buff.

John H. Whyte, Jr., the cyrator of transportation at the Smithsonian, who authored that stellar history entitled "American Locomotives", bid \$375 to carry off the steam whistle of the John Bull, one of the early locomotives to operate in the United States.

A working model of a locomotive, nine feet long with tender, went for \$2300. A PLS live steamer who should know spotted an electric motor somewhere in the guts of the machine, so although "working" may have described its motion, it was obviously not powered by steam. The models of parlor cars, Pullmans and coaches, characterized as exquisite, again pooh-poohed by our PLS observer, went for about \$50 apiece - depression prices, said the New Yorker's man.

Live steamers known to us locally and in New Jersey who were in attendance, and who hoped to make successful bids on some historical items, were astounded at the bidding, in many instances five to ten times what they thought were going market prices.

-- Pull and Buff



DEPT. SOCIETY OF MECHANICAL ENGINEERS 31" & 5" GAUGE

THE MODEL ENGINEER'S ENGLAND - A visit to the Malden DSME. Our last day

by the Editor

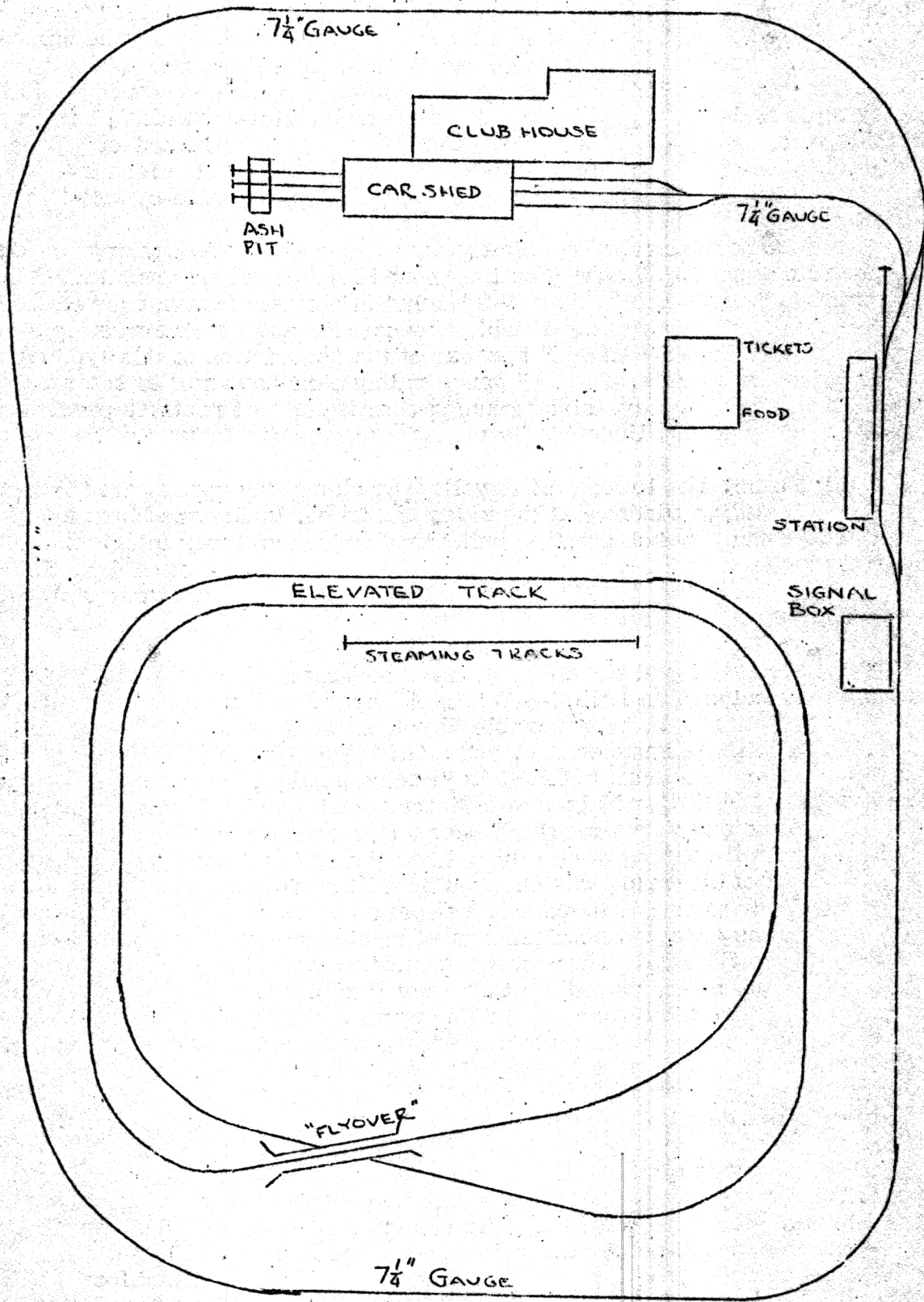
The last day of our stay in Britain had finally arrived - it was Sunday, October 3rd.

Several possibilities of how to spend this precious day were considered, including a trip to Tyseley motive power depot where the Great Western 4-6-0 "King George V" was on display in steam. The locomotive was there near the beginning of its week-long tour in an experiment by British Rail to evaluate a return of steam-hauled excursions which had been banned from BR metals several years ago. (The Rail Board has since relented and has approved a number of preserved locomotives for use on fan trips under certain specified conditions.) However enticing the sight of this engine might have been, the miniatures won out, as we eventually decided to visit the track of the Malden and District Society of Model Engineers, who were having an Open Day on this, their last day of operation in the 1971 season. The Malden Society was founded in 1936; ten years later they moved operations to their present site at Thames Ditton, about fifteen miles from London.

To reach the Malden track we began by walking from our hotel at Charing Cross across Hungerford Bridge to Waterloo Station. It was a rather interesting walk on this particular day because the tracks on the bridge between Charing Cross and Waterloo were being lifted and renewed right down to the bridge stringers, and all this could be seen from the walkway which is carried adjacent to the tracks. Although Waterloo Station was first opened in 1848, it continued to evolve slowly until 1922, when it was "modernized" to its present state. There is a large concourse inside, on one side of which are gates leading to platforms for the twenty-one tracks that terminate here. Above the gates are two large indicator boards for display of arrival and departure information. The Departure Board is constantly updated to show when each of the many trains using this station leaves and all stations at which it stops; the board must be at least fifty feet long. The station is usually very busy and short tractors haul trains of baggage carts, weaving in and out of the crowds in the concourse, honking horns as they go. There is the inevitable news stand replete with a dozen or more railway and model magazines, but this one also has adjacent to it a compact, though well stocked, book store with an excellent selection of railway books. The store also has for sale small cast metal badges depicting famous locomotives; railway coats of arms and modern heralds.

We boarded a carriage on the Shepperton stopping (local) train and thirty minutes later alighted at Kingston-upon-Thames, where we transferred to a bus for the short ride to Thames Ditton. As we stood by the fence at the track watching some of the engines being steamed, our PLS badges were noticed by one of the MDSME members, George Chaplin by name, who greeted us and devoted a good part of the remainder of the afternoon to showing us their facilities. There are two separate tracks - a ground level $7\frac{1}{4}$ " gauge route of about 1300 feet, and an elevated track catering to all gauges from $3\frac{1}{2}$ " to $7\frac{1}{4}$ ". Only about one half of the raised track was in use when we were there, but construction of the other half was virtually complete. In fact, changes in the older section were begun that very afternoon while trains were still running on it, and by the time we left at the end of the day work was well advanced toward linking up the new section. As completed, it is about 1600 feet long in the form of a folded figure-eight as shown in the accompanying sketch. The elevated structure is made entirely of vibrated precast concrete. Vertical Y-shaped pedestals support longitudinal members of T cross-section. The pedestals raise the track about two feet above ground level. Curved sections seemed to have longitudinals cast to approximately correct curvature. Where the grade of the track must be substantially raised, as at the "flyover", the pedestals are supported on columns of concrete block; the space around the columns

SOUTH
BRITISH RAILWAYS SOUTHERN REGION
LONDON



MALDEN AND DISTRICT SOCIETY OF MODEL ENGINEERS

has been subsequently filled with earth to form a continuous bank from which the Y pedestals emerge. A bridge made of I beams on concrete block abutments carries tracks and pedestrians where the loops cross one another.

Track on the elevated line is made of $3/8 \times 3/4$ rectangular steel welded to steel ties about $1/2$ " thick. The ties are fastened directly to the concrete longitudinals with an asphaltic bond. Older sections of track had wood sleepers interspersed between the steel ties and this will presumably be done eventually on the new sections. Rails are gauged by slots milled in steel ties and gauges are interleaved with $7/4$ " between the two outside rails. The ground level $7/4$ " gauge track is constructed of $1/2 \times 1$ " rectangular steel with short lengths of steel strap welded on the bottom at ten inch intervals for attachment to conventional wood sleepers, which are in turn held by stone ballast.

There was tremendous activity on both tracks and throngs of people appeared for riding and train watching. Activity on the ground level track was maintained by a GNR Atlantic, a "Royal Scot", an 0-4-0 "Lulu" in charge of pusher duty, and a genuine 4-4-0 American, with head light, cow catcher and spark arresting stack, known locally as a "cowboy engine" because of the association of this type locomotive in imported Western movies. The $7/4$ " gauge riding cars have raised seats running the full length of the car, and low-slung running boards for foot rests so passengers sit in a normal upright position. Undoubtedly the most impressive feature of the ground level track, if not the entire installation, is a signal box built and manned by the junior members of the club. The lower half is yellow brick and the upper part is clapboard at the rear with sliding windows at the sides and front. Inside are block interlocking signals, a route map, switch position indicators and a ten-lever interlocking frame that controls switches and signals in the station area by means of cables. The signal box is an example of incredible craftsmanship, and inside, comparable skill is exercised in the manipulation of the equipment to maintain smooth traffic flow on the busy line.

By mid-afternoon activity at the elevated track had reached fever pitch. $3/2$ " gauge engines running included an LMS 4-6-0 "Black Five", a "Britannia" Pacific, an LBSC-designed "Minx", an incomparable "Duchess of Buccleuch" Pacific, winner of the 1956 ME Exhibition Championship, and a GNR Atlantic. In 5" gauge there was a GWR 0-6-0 Pannier Tank built to LBSC's "Pansy" design, but with added detail, and an 0-6-0T lettered MDR (for Malden and District Railway??). Operation of the trains was well controlled and very orderly. Locomotives stopped only at the passenger loading area, and all stopped at one time. When the trains had been loaded and firing completed, status of all trains was checked by a Steward, and when he was satisfied everyone was ready to go, there was a tweet on his whistle, his green flag came down, and all trains departed simultaneously, making several laps at breakneck speed until halted by the Steward. There were occasional delays in getting everyone ready to depart, but once the trains moved out they went like blue blazes; whatever the initial delays may have been, they were more than compensated by the ability to run continuously without sporadic unscheduled stops for water, passengers, loose bolts, lack of steam, talking to lineside passersby, etc, etc, etc, as we so often encounter. Large numbers of passengers are accommodated by this scheme on open days, and the drivers seem to enjoy themselves despite the slight discipline to which they must submit.

The Malden Society has a spacious club house with a large meeting room, kitchen and workshop. On one side of the meeting room is a counter served from the kitchen where very good tea and cakes are available. The meeting room is decorated with railway artifacts and pictures. It contains a permanent movie screen and a bulletin board. Other buildings on the premises include an engine and carriage shed for $7/4$ " gauge stock and a refreshment stand and ticket office for public sales. The club has published an illustrated souvenir booklet that describes the Society and the aims of the hobby, and depicts several of the club members' locomotives.

Almost before we realized it, the day was coming to an end, the crowds were drifting away, boilers were being blown-down, redundant sections of the old elevated structure were being bashed with sledge hammers, and new sections were being moved into place to complete the new circuit. So we boarded a bus for the return to Kingston where we had an excellent dinner, then took a final train and Underground ride back to the hotel and started packing. The next day we flew home.

It is odd to reflect on the degree of scientific and technologic development that has gone into the modern jet airplane in view of the subsidiary place this sophisticated modern marvel had in our small adventure to seek out products of an earlier day - steam engines and locomotives - in a distant, and very friendly, country.

EPILOGUE

Not very many live steam enthusiasts will have the opportunity to revel two full weeks in unfettered pursuit of their hobby as Pop and I were fortunate enough to do. However, as casual tourists, it is likely that some readers of this series will find themselves on British soil, and I hope they will have the time and inclination to deviate from their tourists guide books to see how ardently the hobby is followed where it all began.

A rainy Sunday is a good opportunity to visit the Science Museum at South Kensington, London. And only a short time need be snatched from the tourist trail or business meeting to stop in Bonds for a few steam fittings, or Buck and Ryan for some real bargains in milling cutters. Kennions emporium is only a half-day from London, and there you can see what a model supply house can be. When in London, just about the best mode of travel is the Underground, and it is the most interesting.

If a trip to a club track is contemplated, it is wise to observe the various columns devoted to club activities in the Model Engineer for several weeks in advance of the trip in order to become familiar with operating schedules. At a very minimum the latest issue of M.E. should be purchased as soon as possible after arriving in England. Most regular news dealers and all newsstands at the railway stations carry it. The club columns can then be studied to see how a visit can be fitted into other activities on the touring or business schedule. It is not generally necessary to make prior arrangements for a visit as long as the track will be in operation anyway; at each club there is at least one gregarious member on the watch for visitors, usually the Hon. Secretary, who will notice you and introduce you to the club members and show you the premises. Wearing a PLS badge assists the recognition process. British modellers are interested in what we are doing so it is worthwhile to carry some photographs of your locomotive. As to how to get to a club track, that, as they say in the ship advertisements, is half the fun! Many of the tracks near London may be reached by public transport, but advance planning will help avoid arriving just as the last engine is put away. A fondness for mild adventure is also necessary. The Sussex Miniature Locomotive Society can be reached by a forty minute express train ride to Haywards Heath and a short walk from the station to Beech Hurst Park. Because they specialize in passenger hauling there are usually engines in operation every Saturday and Sunday that weather permits, and on some days when it doesn't permit!

Our trip could have hardly been more interesting. The contrast between clubs was striking, each one having a distinctive personality that set it apart from the others, but all possessing a spectrum of individual members that is quite like what you would encounter here. One possible difference between miniature locomotives in England and the U.S. is that in Britain they ALL steam well - nothing less is tolerated. And the drivers are a little more agreeable to live by rules to make running more satisfying. But in general, however, there are no vast differences, only enough to make a trip to see British live steam very, very interesting.

IMPRESSIONS
OF A
MODEL ENGINEER EXHIBITION

BY
ROBERT G. THOMAS

JANUARY 1976

Having been fortunate enough to attend a Model Engineer Exhibition, and being, to the best of my knowledge, the first of the local gang to have done so, I thought a few remembrances of the event might be of interest to those who share my enthusiasm, but have been unable to attend themselves.

The whole thing was precipitated by an advertisement by a Chestnut Hill travel agency for a one-week "door-to-door" trip to England from January 10-17. Phyllis suggested that such a trip, in addition to providing a much sought mid-winter break could serve as a "mutual Christmas present" that we could give each other to avoid (albeit with considerable expense, but much fun) the guesswork and shopping time required by conventional presents. Further, to reinforce her enthusiasm, she even offered to pay the cost of the tour herself, leaving only dinner and miscellaneous expenses for me! Naturally, such an offer could not be refused, but there was just one snag: We would be leaving on the very day that the ME Exhibition was closing. Oh-me-oh-my! But then a call to the travel agent revealed that a large international travel concern offers a similar one-week package tour called "The London Show Tour" that included air fare on British Airways from New York, a room in an excellent London hotel with breakfast, airport-hotel transfers and tickets to four stage shows, for less than the normal air fare alone.* Best of all, the BA tour was available one week earlier, enabling attendance at the ME exhibition. We took it.

We departed from home about 2 PM on Saturday, January 3rd, travelling from Chestnut Hill to 30th Street via PC, then to New York on a Metroliner. After the usual hassle for a cab at Penn Station (the last such hassle until we returned, I might add) we went to the East Side Airline Terminal, where we checked our suitcases. Then we had a very fine dinner at Le Perigord, located a reasonable walk uptown past the United Nations building, in anticipation of airline meals (which fulfilled our expectations). Thus fortified, we boarded a bus at the terminal for JFK airport and were soon taking off at the scheduled 11:30 PM departure time. The flight was uneventful to the extreme, passengers being very well behaved and considerably subdued compared to the situation one normally encounters on summer flights. By virtue of a 150 MPH tail wind we landed fifteen minutes early, walked straight through British Customs and were in our room at the Hotel Bristol by 1:00 PM.

My usual method of operation is to get going immediately on arrival in England, even though it ultimately means a lapse of some thirty hours without much in the way of sleep; after all, you can always sleep when you get back! The Exhibition is closed Sundays, so I decided to try to contact our old friend Jack Davies, the eastern-most member of the PLS. Because he has no telephone, contacting Jack on short notice is not easy, and though I was tempted to just get on a train and drop in on him at his home in Egham, common sense told me to investigate a little first. To make a long story short, Jack and George Williams were running at the Chingford Society track (in the rain) but later in the day I was able to arrange to visit Jack on Wednesday, this being made possible by George, who personally visited Jack with my message and then forwarded his answer to me.

*One-stop Tour Charter (OTC) arranged by Arthur Frommer Charters, Inc. The basic price including all taxes and service was \$339; we selected a better, more convenient hotel for a \$60 supplement.

As part of these machinations, I had spoken by telephone to Jack Rowland, for whom I had brought a book and a U.S. steam railroad calendar from John Caldwell, and arranged to meet him later in the day at Kings Cross Station, where he was going to see his son off to school. In the meantime, I left Phyllis resting from our journey and engaged in a favored pastime: visiting London railway stations. This was an excellent day for station-visiting, for it was the last day of the Christmas holidays, and there were literally thousands of students arriving in, or departing from, the London termini. First stop was Euston - a short ride on the Victoria Line of the Underground which I boarded at Green Park station, only one-half block from our hotel. The circulating area at Euston was a beehive of activity, with travellers scurrying in all directions. While at Euston I stopped in at the John Menzies newsagent shop, but was disappointed to find no evidence of the paperback railway books that used to be obtainable there, although I did stock up on latest editions of enthusiasts' magazines and a new copy of the *A to Z London Street Guide* with "enlarged central area maps" to better cope with my failing near-vision. Then, it was off to Waterloo Station for more of the same, and to Victoria for still more. Having overcome their staff shortage, the London Underground is again providing its excellent service with nary two or three minutes wait even in the middle of a Sunday afternoon. Finally, the trip from Victoria to Kings Cross and my rendezvous with Jack Rowland.

When I arrived at 4:30, the queue for the 5:05 Leeds train was already long and growing rapidly, but no sign of Jack. As it turned out, he was parking the car, but once he had seen his son safely on board, he and his wife, Hazel, chatted with me for some time. I passed along the package from John Caldwell, and he gave me a book to deliver to John and a very attractive calendar for myself. At their car Jack made a sketch of the roads leading from Egham Station to Jack Davies' house for reference on my visit later in the week, of which more anon. Then it was back to the hotel for shower and dress, dinner, then, at last, to bed.

One would expect that a long sleepless period of intense activity would be followed by a correspondingly long night of sleep, but no - I was wide awake at 5 AM, already anticipating events at the exhibition. No amount of tossing, turning, drinks of water, etc., would help; I was WIDE awake. I finally did go back to sleep at 7:30; the alarm went off at 8:00! No matter. Up, breakfast and out by 9:15 with so much time before the exhibition opening time of 10:00 AM that I decided to walk up Regent Street and along Oxford Street. A few zig-zags and I was on Seymour Place, and then, there it is: Seymour Hall and the bright orange and black signs proclaiming THE MODEL ENGINEER EXHIBITION. People coming from all around - walking, some half running, out of cabs and busses, one in a wheelchair - pouring through the doors and into the Exhibition. And I am with them! THIS IS IT!!!

With almost unbearable excitement and anticipation, I paid my 45p admission and walked through the main entrance into one of the most memorable experiences of my life.

As one enters the Exhibition, attention is drawn immediately toward the right where the SMEE have a long straight up-and-back portable track of 3½" and 5" gauge. When I entered, a 5" gauge tank locomotive, the *Suzie M*, was already on duty with a trainload of five ebullient children and a cheerful adult. Rides were 4p (8¢) for two round trips. Behind the track were shelves on which other locomotives available for passenger hauling were displayed, and these were brought into service at various times throughout the period of the

Exhibition. The arduous nature of the task facing these engines was obvious from the slight slip on starting and the sharp exhaust bark. There was no fooling around here; a locomotive was always ready and the passengers got a good ride at a spritely pace. The drivers took obvious pride in their work, one in particular being adept at accelerating quickly, a short open-throttle run, then, braking gently at first, and finally stopping with the locomotive buffers no more than $\frac{1}{2}$ inch from the buffer stops. He acknowledged my silent admiration with a wink and was off again to repeat the feat in reverse. At the far end of the track D. E. Lawrence stationed himself almost continuously preparing the "engineman's friend", assisting drivers prepare replacement locomotives, taking a picture once in a while and chatting with spectators. Also at that end was Bill Carter, Track Superintendent of the SMEE, who saw that a train was always available to accommodate the ever-ready passengers. Occasionally a train would dispatch a load of full tea cups to the starting point for the ticket seller, or a load of empties back to Laurie.

At the extreme end of the track was the SMEE workshop, a counter-like affair behind which were several of the knowledgeable men who are frequent contributors to the *Model Engineer*. George H. Thomas, seated next to a Myford lathe, had a cross slide with a quick-acting lever for engaging and disengaging the tool during thread cutting operations. This device has a repeatability of 0.2 mil and obviates the need to crank the crossfeed out at the end of each cut and back again with the main crossfeed handle, the latter being required only to advance the tool as required by the new thread cutting depth. He had another cross slide with a gear-driven screw and tapered roller bearings to take the screw thrust load. Another item was a set of bending rolls of 10" capacity with two adjustable rollers that permitted making rings without straight sections at the ends of the material.

Next to Mr. Thomas there was a demonstration of fly-cutting on a Westbury-Dore milling machine, and gear cutting. Gears were made with hobs previously machined at the Exhibition. At the end of the SMEE workshop, D. H. Chaddock demonstrated his Quorn tool grinder and answered a continuous flow of questions about this unique and very popular device. Prof. Chaddock also demonstrated home built Electrical Discharge Machining (EDM) equipment using an electrical discharge to erode metal for generation of intricate shapes that would be otherwise difficult or impossible to manufacture, or for removal, by destruction, of broken taps. This device consists of a small motor to drive the copper forming electrode, and a power supply to charge a capacitor. A control circuit with connections to both the electrode and the workpiece causes the motor to advance the electrode until it contacts the work, discharging the capacitor and generating an arc that erodes the workpiece. The arc is generated under a layer of thin oil and, when completed several times a second gradually forms a hole in the workpiece that is a replica of the electrode shape. For instance, Prof. Chaddock showed "L" shaped slots made in hardened steel and round holes made similarly using a tubular copper electrode. The workshop area was continuously ringed by on-lookers two or three layers deep. There was intense interest here, and it was often amusing to hear one of the occupants of an outer layer of spectators mutter, "Why doesn't that bloke move along so the rest of us can talk to Prof. Chaddock", only to see that same individual later engrossed in discussing some topic completely oblivious of similar mutterings about himself! But it was all good, enjoyable, informative fun, and obviously one of the more popular reasons for attending the exhibition.

The SMEE had additional exhibit space at the extreme end of the hall, and here they had a display of photographs depicting their activities; paintings of railway scenes; samples of members' work, including a series of neat "Thesus" stationary engines in three sizes, beam engines, a Quorn grinder, a small power hacksaw and numerous locomotives and components; and a display of their *Journal*, a most prodigious publication of Society news, historical and technical articles. Later in the week some of these were on sale, and I was fortunate to be able to purchase two editions, one commemorating the 75th Anniversary of the Society in 1973. This portion of their exhibit was staffed by well-informed members who acted as Stewards to answer questions about the Society or any phase of model engineering.

The *raison d'etre* for the M.E. Exhibition is, of course, the model competition, and what magnificent models they were! Each had been judged by a panel composed of accomplished model engineers who graded every competition entry with a point score weighted in accordance with the attributes tabulated below:

EXHIBITION SCORING

Workmanship	200
Finish	100
Quantity of Work	100
Suitability of Material Used	50
Fidelity to Prototype	<u>150</u>
Maximum Marks:	<u>600</u>

The first place entry in each of several classifications is awarded a Championship Cup. Lesser awards are Silver and Bronze Medals, Very Highly Commended and Commended. Additional special or memorial awards are also made. A further competition for the Duke of Edinburgh Challenge Trophy - the epitome of excellence in model engineering - is held every year for previous winners of Championship Cup or a Medal.

Taking locomotives first, winner of the Championship Cup was a 5" gauge LBSCR 4-6-4 Baltic Tank. This particular locomotive was No. 333, *Remembrance*, the prototype of which was dedicated to the Company men who perished in the First World War. This example was painted light gray with black smokebox and black and white lining, a temporary color scheme the railway used for new locomotives that were to be photographed because of its superior rendition by the orthochromatic photographic materials of the day. This particular engine happens to be my favorite of all British types, and actually standing next to such a superb miniature rendition was nearly overwhelming. I had never before seen such craftsmanship outside a museum. The paint was just about perfect, no dust occlusions evident anywhere and just the right degree of gloss. Where a trim line came to a bolt, the line went up the side of the head, across the top, and down the other side! The Wakefield lubricator even had raised lettering on the top cover per prototype. Driver spokes were smooth and thin. A small hatch in one of the side tanks was retained by two miniscule hinges. In short, this miniature locomotive was characterized by elegance and perfection; there could be no argument that it had received its just reward.

Though perhaps not representing the "Quantity of Work" of *Remembrance*, but its near equal in most other respects, was a 5" gauge Caledonian 2-4-0, entered by Roy Amsbury of the Derby Society of Model and Experimental Engineers. It was finished in the dark blue of the Caley, with rich brown valances and tender outside frames. Its huge drivers extended above the boiler centerline, half-hidden by

handsome splashers, each with a series of radially-placed tapered oval openings, each opening being surrounded by a thin white trim line. Considering that there was a total of fifty of these openings (counting both sides of the locomotive), and around each one was a trim line involving four tangent junctions of curved and straight lines, there were two hundred of these pesky exercises in drafting, all perfectly executed. (I must admit I did not see the off-side of this locomotive due to its position in the exhibit, but there is no reason to doubt that the invisible side was just as perfect as the viewable one.) The cab was a treasury of exact - that is exact - scale fittings, for which Mr. Amsbury is well known through his recent construction articles in M.E. He also makes his own pressure gauges. The engine was accompanied by a miniature display case containing a water pail, jack and wood handled shovel.

Not that all the entries were in this stratosphere of mechanical excellence. Far from it! Some were the obvious products of tyros while still others, though being of generally good quality, had a lapse or two that the builders must have well known would keep them out of the top rank. Yet they were all entered in the true spirit of an exhibition: To display a recent accomplishment in mechanical arts for the pleasure of others. In that vein there were almost too many *Tich's* to count, an LBSC *Juliet*, a *Rob Roy* 3½" gauge 0-6-0T and, for what was to me the most endearing design of locomotive I have encountered, a 2½" gauge narrow gauge 4-6-0T appropriately named *Little Treasure*. Almost a caricature with its large, if not outsize, cab, diminutive cylinders, a tall narrow copper-capped stack and - most unusual for a British engine - a red cow catcher. Each of these components would appear "funny" on another locomotive, yet collectively, they were unquestionably logical and in just the right proportion. No prizes; no special citations; but to me, it was one of the highlights of the entire exhibition.

Aroused from my reverie, I must get back to those award winners. A British Rail Britannia Pacific *R. A. Riddles* in 3½" gauge received the J. N. Maskelyne Memorial Trophy. As an aside, after the presentation of my slides of the Exhibition at the PLS AGM, Harold Geissel told me his early inspiration for excellence in drafting came from the published drawings of J.N.M.

There was an excellent GWR *King William III* (V.H.C.), a Southern "Schools" class, and the 2-10-0 *Evening Star*, the last locomotive built by B.R., all in 3½" gauge. In 5" gauge, the LCDR 2-4-0 *Asia* received a Silver Medal, and there were also many other worthy entries in 1-1/16" scale. (Many of the British enthusiasts I talked to scarcely believe that we use 4-3/4" gauge in 1" scale, and are often unaware that it was once the proper gauge in Britain, too!) To round out the locomotives there was a display of small-scale models, most interesting of which was a Gauge 1 live steam replica of the 4-6-2 Duchess Class *City of Birmingham*.

Ships were well represented by models in many classifications. Among them were large scale paddle steamers, naval ships and several tugs, all with operating power plants employing steam, I.C. or electric propulsion. There were large RC sailboats, waterline models, old sailing ships completely rigged, ships in bottles, and modern motor launches. The one I liked best was a ¼" scale bomb ketch *Granado* that had been awarded a Silver Medal. Its hull was a work of art with perfectly fitting planking and plugged screw holes typical of the original. To my inexperienced eyes this ship appeared superior to *Le Sphinx*, a French sailing paddle steamer also in ¼" scale, which received the Championship Cup. However, both these models, as well as others in the same classification, were located on a shelf somewhat too high and too distant for detailed observation, making a thorough study by the casual spectator rather impossible. Lack of time permitted

only one visit to the swimming pool-cum-model boat marina where regularly scheduled demonstrations of radio controlled power boats were given to a delighted audience of young and old.

Stationary engines and steam plants were exhibited in profusion. They included no less than two renditions of the M.E. 1" scale beam engine, a Stuart Turner beam engine, a S.T. No. 5 engine which was nicely lined, and a lagged vertical boiler mounted on a base with a small coal bin, water tank and feed pump. The same builder also displayed a nine cylinder rotary aircraft engine. I thought the most intriguing entry of this type was an elaborate electric generating plant in which a large alternator and exciter were driven by a gas engine with complete auxiliaries. It would take hours of close scrutiny to fully examine and appreciate the intricacies of this plant. All pipe joints were flanged; a maintenance platform for the engine was surrounded by neat railing and reached by twin ladders; electrical equipment was especially realistic.

The popularity of steam road vehicles as objects for modelling was well attested by the many traction engines on display. The recently described *Minnie* traction engine was there in great numbers and when seen "in person" appears larger than its 1" scale might suggest. Of course the popular Allchin 1½" scale *Royal Chester*, probably the most widely duplicated traction engine, was also well represented. Off-beat interest was provided by a steam wagon in which the entire engine was visible just ahead of the driver's position. A Silver Medal was justly awarded to a 2" scale Wallis and Steevens roller finished in chocolate brown and black with yellow lettering and lining. The mechanisms of these vehicles are fantastically complex, surpassing those of most locomotives in terms of ingenuity and are certainly easily appreciated in the large scale of this roller. However, for pure perfection, for detail executed with precision beyond all belief, and for the very pinnacle of the model builder's art, there was nothing at the entire exhibition to surpass the 1" scale Burrell showman's engine that received the Championship Cup. The perfection exercised in its finish and lining defies description; headlamps with exquisite detail; impeccable machine work throughout; displayed in a handsome case along with a set of scale firetools and three miniature oil cans; and, gentle reader, constructed in its entirety by a lady!

There were several clocks on display, and I regret that I did not take more time to look at them (no pun intended). One of particular interest was an astronomical clock with a separate dial for each unit of time from the year to the second. Some workshop tools and fixtures were displayed, but not as many as I had expected. There were also interesting and well executed models of railway cars, automobiles and motor cycles, a Colt revolver in a case, a rifle with tooled silver ornamentation, farm vehicles, military vehicles, full-size musical instruments and wood carving. The Duke of Edinburgh Trophy (the award for the best previous winners) was presented for a model of a loom that actually had woven a piece of fabric from reels of cotton thread stored behind the loom. A mass of cams, gears and cog belts surmounted by a scale frame stopped in the process of weaving the fabric mentioned above, it was a very unusual model imaginatively displayed.

Several model engineering societies had display stands. Among them were the Tramway and Light Railway Society who had recreated a street scene in which several of their members' ¾" scale trams were displayed. The trams had complete interiors and were brightly painted and adorned with gayly colored advertising of the era. Most were double-deckers with spiral staircases at their ends. The Chingford, North London and St. Albans societies all had stands featuring models, tools and machinery built by their members. The North London Society of Model Engineers exhibited LBSC's original *Mona*. LBSC was North London's patron, and I was told that four or five of Curly's original locomotives are presently owned by Society

members. In a conversation with Mr. C. J. Drayson from North London, I learned that on the infrequent occasions when LBSC entertained club members at his house, after they had chatted at length in his shop he would offer to let them choose a locomotive from his many miniatures on shelves about the walls, and then they would take it out to his garden track for a run. Mr. Drayson also said that Curly's shop was extremely neat and well kept, almost to the point of appearing that no work was done there!

Amongst the club stands was the Southern Federation of Model Engineering Societies which now numbers over forty individual clubs who have banded together for mutual benefits, including a very inexpensive insurance program, discounts on tools and materials, and organization of rallies throughout the running season. On hand during the entire Exhibition was Don Coventry, the Hon. Secretary, who provided information on the Federation, discussed steam locomotives in general and dispensed who-knows-how-many cups of tea. This stand had an operating hot air engine and an LBSC steam crane. For a while they also exhibited a photograph of the PLS multi-gauge switch, which seemed to attract some interest. Don was also kind enough to allow me to leave my coat and brief case at the stand and further provided a tip on a good pub for lunch; the *Laurie Arms* P.H. made a restful spot for a pint and a sandwich of fresh baked ham.

Display stands across the aisle from the SMEE track were occupied by four commercial establishments, all of whom were enjoying great interest on the part of attendees whenever I happened past. The stand nearest the exhibit entrance was occupied by N. Mole, who displayed Boxford lathes (similar in design to the South Bend models), Unimat and Maximat lathes and accessories, their own model drill press, their proprietary motorized milling attachment for use on a lathe and a display board full of various small tools and instruments. Even though they had considerable exhibit area, their stand was crowded with salesmen and potential customers, so here I just browsed and listened in on snippets of conversation.

Next was a display of small lathes by Perris. Although I had seen pictures in advertisements for this lathe many times in M.E., I was not prepared for the businesslike design and excellent construction that actually characterize them. They are genuine miniature lathes with all the features of a full-size model, and capable of all operations expected of a lathe - within their capabilities. Just the thing for a beginner, apartment dweller or for turning parts that are just too small for the proper "feel" on a conventional-size lathe.

I had made a list in advance of our trip of various Sievert propane torch and burner components I hoped to acquire while in Britain, thus, I was more than happy when, arriving at the next stand, where Kenneth Johns had a full display and sales facilities for the Sievert range, to find that the items I wanted - as well as many other Sievert products - were being sold at a "Special Exhibition Discount" of 35% off the regular price. Each of their display burners was connected to a manifold enabling them to be ignited individually or several at once so a comparison of relative flame size could be immediately made to aid in selection in accordance with requirements. The largest burner, over 1-3/4 inches in diameter, produces a flame almost two feet long, guaranteed to deliver all the pre-heat necessary for boiler brazing. Smaller ones, down to needle flame sizes were also available, as were regulators, hoses and handle assemblies and all at reduced prices; reduced from the new inflationary prices, that is, but still an excellent buy for anyone needing this equipment. All stops were out at their exhibit where a factory technical demonstrator was in attendance

augmented throughout the Exhibition by various craft workers and well-known model builders who demonstrated their art or answered questions. Again, it was a case of an exhibitor doing something right, judging from the keen interest and brisk sales. Myford had the next stand and as might be expected of the leading supplier of lathes to model engineers in England, they enjoyed a continuous stream of visitors and potential customers.

There were many other commercial exhibitors, concentrated mostly along one aisle, but also scattered in other parts of the exhibition hall. Argus Books, the publishing arm of M.A.P. had two stands fully stocked with model engineering publications. Traction Engine Enterprises had a wide range of records and books as well as complete volumes and individual copies of back-dated *Model Engineers*. I was able to complete my M.E. file back to 1927 by the acquisition of an unbound Volume 69, the individual copies of which were nicely packaged together in polyethelene. They also had a pile of very old issues that were being sold individually at 25p each or 5 for £1. I picked out a random selection of five issues from 1901 to 1914 to read for general interest. Kennion's had a fully stocked stand which offered copper, brass and steel in sheets, angles and rod, locomotive fittings, rivets, hex screws and nuts and small tools. I bought a length of each size hex bronze from 3/16" to 5/8" to use for boiler fittings.

Then there were the purveyors of toy soldiers, plastic kits, clock kits, military publications, bottle cutters and eyeglass cleaners (!), all of which had no interest for me (at least when there was so much good stuff abounding) but which attracted hordes of youngsters and like-minded adults. While I can sympathize with our English brethren regarding these deviants from true model engineering, there is little doubt that they are an economic necessity from the promoter's point of view and might well be accepted, if not patronized, by real enthusiasts who might otherwise find greatly diminished support from the organizers.

Almost before I realized it, the time was 6:00 PM, and I had to leave my first day at the Exhibition, but still feeling exhilarated, I walked through the area of foreign embassies back to the hotel.

The next day began at 4:30 AM when I again wakened prematurely and again was unable to get back to sleep, reviewing events of the first day at Seymour Hall and anticipating things to come. Finally it was time to get up and after breakfast in the hotel dining room, I bid Phyllis goodbye again and went to St. Pancras Station, where I was to meet Dennis Monk on his arrival from Derby at 10:06. Many of the exhibits were revisited while Dennis provided background information on a number of the locomotives. He introduced me to Prof. Chaddock, with whom we subsequently had a long and informative talk. Dennis also knows William Hughes, and I had an opportunity to speak with him for a while again, having first met him in Derby when there in 1971 with Pop. Bill writes quite a lot for the *Model Engineer* under his own name as well as a *nom de plume*. He is a judge at the exhibition and had some interesting sidelights in that respect. Dennis was also on the watch for another friend, Martin Evans, who we later met with his wife. During our brief chat I gave Mr. Evans some slides of Pop's *Phantom* that he had previously indicated interest in for possible publication.

While near the Southern Federation stand we came upon none other than Jack Davies and George Williams and engaged in what Jack would call a "chin wag". I noticed that the old timers at the exhibition are at least as interested in talking to their pals as they are in seeing the exhibits, which, after attending for many, many years is natural, I suppose.

The LBSC Memorial Bowl Competition is for locomotives designed by the late L. Lawrence and depends not just on the appearance of the model but, characteristically of that gentleman's designs, actual performance on the track. As far as I am aware only three locomotives were entered, these being *Pansy* a 5" gauge 0-6-0 Pannier Tank in London Transport livery, the 3½" gauge 2-6-0 *Princess Marina*, and a 5" gauge *Titfield Thunderbolt* based on the famous *Lion*. All were well constructed and although I didn't witness the track trials, I was told later that *Titfield Thunderbolt* was the victor. David Neish, who visited us last Spring from Guildford, is building one of these.

We departed the Exhibition at about six in the evening, returning to the hotel for Phyllis. Then we had dinner together at Rules before going to St. Pancras to see Dennis off for his return to Derby.

In all I was able to attend the exhibition for two full days and two half days. This is not enough time, at least for the first experience there. For one thing, the large number of people inhibit circulation among, and access to, the exhibits. At the exhibits themselves, one often had to wait several minutes to closely scrutinize a model, but then there was the constant "social pressure" to move along so the next person could enjoy them. This was especially true in the case of Championship Cup winners. The throng did tend to diminish around tea time (4:00 PM) and that was the only time photography was feasible. In terms of numbers, I was told that on the Friday before our arrival, January 2, there were 9,000 visitors and the influx was so great there were long lines at the ticket windows. An unfortunate side effect of the great number of people shuffling about is that considerable dust is inevitably stirred up which finally settles on the models. By the time I was there, after the Exhibition had been in progress for over a week, this condition had reached the stage where the dust was beginning to obscure the quality of finish and details on some of the models. The crowd problem should be ameliorated beginning next year when the Exhibition will be moved to a new convention center at Wembley.

Another reason for the shortage of time is that there is just too much to see! In addition to the principal exhibits, there are small objects scattered throughout the area that you would like to stop and examine, but often hesitate because other, more significant exhibits, are beckoning. Also, it is easy to expend an hour or more at each club stand just talking, and although this is part of the fun, it does put a strain on time allotment.

My two half-days at the Exhibition were Thursday and Friday afternoon, having spent the mornings in book stores and running around London. Finally, late on Friday, I had a ride on the SMEE track behind a GWR 2-6-2T, then quickly took my leave, not chancing a backward glance.

Wednesday the whole day was spent away from Seymour Hall, primarily to visit Jack Davies. I got the 9:54 stopping train from Waterloo and, after alighting at Egham Station, was doing well following Jack Rowland's street map until I encountered roadworks where an interchange for the new M25 ringroad is being constructed. This meant that some of the roads I wanted to traverse were unpassable, the result being that I was soon hopelessly lost! Some good came of my misfortune however, as I came upon a monument marking the site of a Roman wall, as well as having a good view of *Great Fosters*, a hotel in what was originally a hunting lodge of Queen Elizabeth I. Eventually I did get to Jack's, and he soon had the tea hot and my seemingly endless walking was forgotten.

Jack surprised me with the progress he has made with his latest locomotive, his thirteenth (!), an early Stephenson 2-2-2 of the LNWR. It necessitated a lot of research on Jack's part as there are no complete drawings of this specific prototype, but by piecing together bits of information from various sources he is arriving at as accurate a representation as possible. Drivers, placed well toward the rear, are from *Maid of Kent* castings, while the two sets of large forward-mounted carrying wheels are made from castings intended for a Stirling Single tender. It promises to be an unusual model that will possess all the grace in action of an outside cylinder single-wheeler. It looks fast even standing still!

Because I am interested in the Virginia and Truckee *J. W. Bowker* as a possible next locomotive, we spent considerable time looking over Jack's 5" gauge model. He has used a displacement lubricator with sight feed on this engine and mentioned that all his recent locomotives have had similar lubricators. Beside being able to meter much smaller quantities of oil, the displacement lubricator permits the locomotive to be turned upside down without concern for oil running from its reservoir. Jack has engines literally all over his house; there was 3/4" scale *Buffalo Bill* (alias *Virginia*), and in a corner on the floor, his freelance 3 1/2" gauge New York Central 2-8-0 *Minnehaha*. Still another was the Manning Wardle 3 1/2" gauge 1 1/2" scale 2-6-2 of the Lynton and Barnstable Railway with outside Joy valve gear that he expects to have in steam for the first time this Spring. Being a narrow gauge locomotive with small drivers, this engine should have tremendous passenger hauling capacity.

By now it was well into the afternoon so we hopped in Jack's car for a short drive to his "local", the *Prince Albert* where we had some brew and some of the best Shepherd's Pie I've eaten. We had a bit of a time getting the car started after lunch, so when we got back to Jack's home we limited the length of our "chin wag" in case he needed some of the afternoon for a visit to the garage, and around 3 o'clock I was on the train for my return to London. During the ride back, try as I would to watch the sights pass by the carriage window, I kept nodding until I finally gave in and went sound to sleep until we arrived back at Waterloo; the "jet lag" had finally caught up!

On Saturday another journey was made from the metropolis; this time to Stafford, where I was to again meet Don Amey of the Stafford and District Model Engineering Society. The 140 mile distance was traversed with two intermediate stops in exactly the scheduled time of 109 minutes, mile after mile being timed at less than 35 seconds each (better than 103 mph). Don met me at the station, then we drove a short distance to his modern home in the rural town of Weston where he introduced me to his wife before we set off on our next stop, the home of John Tew, Secretary of the Society. John is building a GWR 45XX 2-6-2T *Firefly* in 5" gauge. Chassis and boiler, nearly completed were set up for me in his shop so I could see his progress and study some of the details on his locomotive that are not too apparent on drawings already examined. His shop, typical of British model engineers, is in a shed behind his house. It is about six feet by eight feet in floor area, well lighted from several windows, and has a work bench along one wall and a bench for his lathe along another wall. Time was moving along at too fast a rate, and we soon had to leave John's snug shop and take a quick glance at his 3/4" scale *Juliet* before we were off to the Society track a few minutes away at the County Showgrounds.

The club receives their site in return for hauling passengers on the few days a year when the county fair is in progress. In addition, they have a portable track for use at nearby fetes which is booked well in advance for this Spring. They derive considerable income from the two tracks, many hundreds of pounds, in fact, not to mention the pleasure which obviously attends their efforts. One of the members had brought his completed *Speedy* chassis for me to see and another showed the 2-8-0 chassis and tender for *Nigel Gresley*, both of which were characterized by fine workmanship. (A sudden thought: since a Championship Cup has been awarded to a lady for her traction engine, will the modern idiom demand that we refer to workpersonship?)

Anyway, it was cold and windy so we didn't tarry long in our admiration of the two chassis before retiring to the Clubhouse, an attractive building with large windows on three sides. Inside, John Matthews, President of SDMES, made a short speech to the ten or so of us assembled and, to my complete astonishment announced that I had been made a Lifetime Honourary Member, and presented me with a Membership Card signed by those present! Not only that, they also presented to me a lovely Wedgwood covered candy dish, a product of Staffordshire to commemorate my visit. What grand lads these are, and how sorry that I could not stay longer, but the clock was still moving, so we returned to Don's house.

Before lunch Don showed me his shop where he recently completed a 5" gauge 0-6-0 *Simplex* that has already seen extensive duty in passenger hauling. At present he is finishing a Westbury-Dore vertical milling machine. He has also made a 1½" scale Allchin traction engine. His shop, also about six feet by eight feet, is somewhat unique in that it is within his house and is therefore easy to keep warm, especially due to the proximity of the central heating plant. Dierdre, Don's wife had prepared a fine and elaborate luncheon that we finished with just enough time for me to get back to the station at Stafford. Although I had reading material for my return trip, I found it more satisfying to sit back and gaze at the passing countryside while contemplating these most pleasurable day's events until, almost before I realized it, we were back at Euston Station exactly on schedule, thanks to the faultless performance of electric locomotive 87006 and her crew.

Saturday was capped with dinner at Claridges. We departed Heathrow at 10:00 AM Sunday, the most significant event of our return being "requested" by the Steward to move into the First Class section of the airplane! In that regard it is worth noting that anyone travelling on a charter flight should try to arrive early for checkin and inquire about availability of First Class seats, for if the entire plane is sold for the charter, there is no price differential and it may just as well be you sitting in those wide 2 x 2 seats as someone else.

That's it. If you stayed with me this far you know what kind of time I had. There is just nothing more to say.

FROM ACROSS THE POND

by Robert G. Thomas
Philadelphia, U.S.A.

(WRITTEN FOR HARROW WEMBLEY SME NEWSLETTER - 1981)

Upon arriving home from work one evening last spring, I was immediately intrigued by the arrival in the day's mail of a thick packet bearing a U.K. postmark. With increasing anticipation I hastily opened it to find two recent issues of the CON ROD, this having been thoughtfully arranged by Don Coventry, a "fellow conspirator" of several years. Accompanying these absorbing journals was a note from the new Editors suggesting I might send a few words about activities in the U.S. So, without further explanation, here is a description of some of the events I've been engaged in recently.

Although not strictly in the category of model engineering, certainly one of the most memorable occasions of late was the opportunity to witness the steaming of a full size Allis Chalmers triple expansion stationary steam engine. This engine, with cylinders 21" x 38" x 56" x 36" stroke, is operated once a year by the enlightened management of the Garden State Water Company at Phillipsburg, New Jersey. The professed reason for running the engine is to ensure it is fit for emergency service in case of failure of the electrically driven pumps, but I suspect that a love of steam power and a benevolent heart have more than a little to do with it! This year's running was preceded by an excellent article about the engine in Live Steam Magazine so when we arrived at the site, the temporary car park was nearly full. Inside, the Company had laid on refreshments, steam was nearly up to working pressure in the gas fired boilers, and there were enthusiasts milling around everywhere. However, even though there must have been well over a hundred visitors there was no crowding at all, for the engine house was originally designed for two engines, only one having been installed, thus enabling a choice of distant or close-up vantage points and plenty of space to circulate.

Precisely at the appointed hour of 11 AM, the Chief Engineer began the warm-up process and before long the engine slowly came to life. The cylinders are supported on three cylindrical trunk crosshead guides strangely reminiscent of the familiar Stuart Turner arrangement. Two flywheels, one between each outer trunk guide and the central trunk, are no less than fifteen feet in diameter. Pump rams, located in a pit beneath the engine, are coupled directly to the engine crossheads by heavy vertical rods. The pumps have a capacity of six million U.S. gallons per day at a head of 445 feet. I must admit being somewhat dismayed by a trace of vibration and a few whiffs of steam issuing from piston rod glands, but perhaps one is too harsh in criticizing such an enormous mechanism that languishes in idleness for 364 days a year. In any case, it was an exciting experience, punctuated by a surprise shower for a few innocent on-lookers when a joint in an auxiliary water pipe burst. The unfortunate victims accepted their plight with good nature; after all the test run was made for the purpose of discovering just that sort of fault - wasn't it?

Guests had free run of the engine house and boiler room for chatting with friends, old and new. Some simply stood alone and stared for long moments, transfixed by the relentless motion and hypnotic clicking of the Corliss valve gear. Finally, as the stop valve was closed and the engine drifted to a stop, a round of applause went up from the multitude in appreciation for the opportunity to share a moment of nostalgia.

Next time, with the Editors' permission, I'll describe some of the existing and planned facilities at my club, the Pennsylvania Live Steamers, and tell of some of the running events of the past year.

FROM ACROSS THE POND - II

by Robert G. Thomas
Philadelphia, U.S.A.

The two most notable events at my club, the Pennsylvania Live Steamers, are meets (rallies) held on two-day holiday weekends in May and September. The PLS track is a multi-gauge continuous loop comprised of $2\frac{1}{2}$ " , $3\frac{1}{2}$ " and $4\frac{3}{4}$ " gauges in the form of a long oval bent to a right angle at the middle. To the amazement, if not amusement, of my British friends, this is a ground level track; that's right, a $2\frac{1}{2}$ " gauge track on the ground! Yet this is no novelty for PLS, having had this arrangement since the inception of the club in 1946, nor does it present a particular problem with regard to stability when one uses the method of riding to be described later.

Construction of the present track began in 1973 when the club was forced to vacate its original site of 24 years occupancy. The new track is on $5\frac{1}{2}$ acres of ground purchased by the club in a semi-rural area about thirty miles from the center of Philadelphia. Curves have a minimum radius of 50' and are superelevated for a design speed of 10 mph. Transition sections at entry and exit from curves virtually eliminate instability caused by acceleration effects typical of constant-radius bends. Track was built in prefabricated sections of 10' length in assembly fixtures. Individual fixtures were made for straights and for curves of 50', 70' and 100' radius. Each fixture consists of a plywood trough with cleats inside to position two full-length 2" x 2" longitudinal battens. The battens are laid in first, then ties (sleepers) are dropped into locating slots and fastened to the battens with galvanized nails. Flat-bottom aluminium rails are fixed to ties with long stainless screws driven by an electric hand drill equipped with an inexpensive speed reducing adaptor. All wood parts were treated before assembly to resist rot. Curve radius is established by the jig used, although rails are rolled to approximate radius before fastening. Superelevation is provided by sawing ties with a taper across their length so that after being nailed to battens the taper appears across the top of the ties and hence across the rail heads. Transition curves are generated by use of one 100' radius section and one 70' section with superelevation graded throughout the transition. Assembly crews frequently had all four fixtures in use at once, taking about forty minutes to build one section. That the effort required to build the jigs was well spent can be appreciated from the knowledge that the entire 780' of track required was assembled in only three days. Sections were finished by trimming rails with a saw guiding fixture then drilling holes for fish plate bolts through the rails with another jig. Completed sections were finally put in carefully pre-planned locations on a layer of ballast. More ballast was then tamped in and eventually the track was edged with curbing blocks to prevent migration of ballast into surrounding soil.

Returning to riding technique, it must first be understood that PLS does not do much public passenger hauling, and that which is done is generally handled on $4\frac{3}{4}$ " gauge using riding cars with transverse foot supports at the front of the car or narrow footboards at the sides. The REAL fun, however, is reserved for the $2\frac{1}{2}$ " gauge enthusiast. My riding car is 52" long with an inclined chest support near the front and a sponge rubber knee pad at the rear (middle age, y'know). It is fittingly named "Purley Caks", although the significance of that is lost on most of the local arabs. Being a purist, the trucks (bogies) run on $2\frac{1}{2}$ " gauge, same as the locomotive. The sheer exhilaration experienced when riding behind a diminutive 4-6-0 with your head a scant six inches behind the tender almost defies description: ballast and ties merging into one blur; connecting rods flashing right at eye level; tender rocking; footplate swaying as the engine leans into curves and sprints into the straights. Pure Delight!

The next article will tell more about activity at PLS and some of the other clubs in northeastern U.S.

FROM ACROSS THE POND -- III

by Robert G. Thomas
Philadelphia, U.S.A.

Model engineers in the U.S., not sharing the benefits of a compact country enjoyed by our British counterparts, must generally contend with substantial distances if it is desired to visit another club. For example, the Pennsylvania Live Steamers' track is (only) 23 miles from my home, but the next nearest club is 75 miles away, the next is 180 miles, and then 300 miles. And this is in the northeastern region of the country where population density is relatively high; in more isolated sections there might be well over 1000 miles between club tracks -- something to contemplate the next time you're trekking all the way from West Ruislip to Roxbourne Park!

Despite the distances involved, there is a considerable interchange of visitors among club members in the northeast. So it was, that my wife and I departed on an August Friday last summer for the 300 mile journey to Boston and a weekend meet at the Waushakum Live Steamers. The Waushakum track is the most "English" track I know of in the U.S., being an elevated line for $\frac{3}{4}$ " and 1" scale equipment with nicely landscaped grounds and scale-like auxiliary buildings at lineside. The picture was made complete this year by the presence of a "Pansy", a "Tich", an LNER "Royal Sovereign" driven by an ex-GWR fireman, a Southern Mogul from Canada, and an A3 under construction. A contrast to British practice is "side saddle" riding rather than "straddle", making firing on-the-run somewhat difficult. LBSC would have liked it though.

The locomotive I took to Waushakum was a 1" scale 2-4-0 built by my father, as my $2\frac{1}{2}$ " gauge engine would not have had a running facility at Waushakum. My father's engine features a unique boiler mounting which permits complete separation from the chassis by the removal of four bolts between smokebox and saddle, and three bolts between drag beam and backhead. All steam and water connections are made at once through gasketed flat mating surfaces at the smokebox/saddle interface, thereby eliminating all individual pipe fittings. Assembly or disassembly takes less than five minutes. The real beauty of the scheme, however, is that the locomotive may be separated into two easily-handled components, boiler weighing 56 pounds and chassis only 48 pounds. A further dividend is that with boiler removed there is unexcelled accessibility to chassis interior components for lubrication or maintenance. This engine has outside cylinders and valve gear, but think of the advantages of a removable boiler on an engine with cylinders or valve gear between the frames.

Returning to the rally at Waushakum, the club had received a quantity of bituminous coal "at a very attractive price". The coal might better have been called "stiff tar", for it contained a high proportion of volatile products and made prodigious clouds of dense, aromatic smoke that is so dear to the hearts of American railroad enthusiasts. It was not without its problems though, for after two hours of running my locomotive suddenly stopped generating steam, even with the blower fully on. Of course the problem was clogged tubes, but I wasn't prepared for the sight the firebox tube sheet presented: the entire lower row of tubes was caked with a solid coating of half-burned coal, and even the upper rows of tubes had their bores reduced to $\frac{3}{16}$ " and less. But the fun of making smoke like the "bigguns" (in the U.S. that is, certainly not as in the U.K.) made the flue sweeping chore well worthwhile.

Toward evening, after most of the locomotives had been taken off the track for the day, a train was made up with a large $\frac{3}{4}$ " scale locomotive hauling its driver and about 25 colorful scale freight cars, creating a most impressive sight. We left shortly after but returned on the Sunday morning, not to run this time, but to simply look at the club's large wood-fired boiler and assorted stationary engines, take a few photographs, and chat casually with kindred souls. At noon it was lingering goodbyes all around, then off for the trip home and the end of a weekend to be long remembered.

MODEL SHOPS AS SOURCES FOR RESTORATION SUPPLIES

Bob Thomas, W3QZO

Unique products that can help solve a knotty restoration problem are often available from sources other than the conventional suppliers we all accustomed to using. One such source is a well stocked model shop, where items can be found that will prove useful in many facets of radio work.

One of the most useful products I have obtained from a model shop is Wilhold R/C-56 glue, which readily adheres to most materials. It has properties that make it particularly useful for attachment of dial bezels. Although it is milky and water-soluble as used, after it has cured, it becomes crystal clear and waterproof. That means you can easily see where you have placed the glue around the bezel, but residues will be visible. Furthermore, excess glue can be wiped off with a damp rag, an essential feature for a klutz like me. R/C-56 develops good adhesion in an hour and cures completely in one day. When fully cured, the glue is somewhat flexible, so it will not crack or apply undue stress. Finally, the strength of the glue is not so great that assemblies cannot be carefully pulled apart and glue residue rubbed away in the manner of thick rubber cement.

Another useful adhesive stocked by most hobby stores carries the unlikely name "Zap-A-Dap-A-Goo." This very viscous, highly volatile material, is manufactured by Pacer Technology, and is supplied in an old fashioned metal squeeze tube. Its high viscosity and low shrinkage enables it to be applied in rather thick blobs to act as a watertight strain relief and grommet where a cable passes through a chassis or cabinet hole. Small blobs will secure long, dangling wires. Because the adhesive's solvent evaporates rapidly, these blobs become self-supporting very quickly. At full strength, the glue is rubber-like, enhancing its function as a strain relief. Three cautionary notes: 1) The solvent appears to be what humans shouldn't breath, so provide ventilation. 2) The solvent will react with many plastics - watch out. 3) The adhesive is like the worst melted cheese you ever saw with regard to developing stringy hairs, so when the tube is drawn away make sure surrounding areas are protected and pull the tube away quickly.

Another product available in model shops is cyanoacrylate glue, popularly known as "Super Glue," obtainable in three viscosities to match the application. The lowest viscosity cures almost instantly when placed between flat surfaces and pressure is applied, but it will not fasten parts with rough surfaces. If you need time to position the parts, or if mating surfaces are porous or rough, use the medium grade, and where you need a fillet and can tolerate long cure time, employ the thickest type. Unlike common store products, the model shop variety, in addition to availability in all grades, comes in teflon bottles with a screw cap to minimize the tendency for the glue to cure in the bottle. Shelf life can be extended by storing unused glue in a refrigerator or freezer. "Cyano" glues, as they are commonly called, are available under many brand names in quantities as small as 1/4-ounce, costing \$2 to \$3, depending on viscosity. Larger bottles are uneconomical for our occasional use. A product related to cyano adhesives is "accelerator," usually supplied in a spray bottle. When sprayed on a joint just made with a viscous glue, curing is instantaneous. In another application, accelerator is applied to one part, and the cyano the other; when brought together, the parts adhere instantly and permanently, so get it right the first time! Still another related product is a filler called micro-balloons. When a filler is mixed with cyano glue, large graceful fillets can be made at corners of plastic or wood assemblies. In using cyanoacrylates, remember they work on fingers and eyelids as effectively as on radios, so be careful; serious injury can result from a moment of carelessness.

Model shops stock epoxy adhesives in a much wider variety than is obtainable in typical hardware stores. One type, usually sold in relatively large quantities, is thin enough to be brushable. It is intended for laminating fiberglass cloth which, incidentally, is available as an extremely lightweight fabric at most model emporiums. More conventional epoxies are supplied in at least three grades with cure times from five minutes to eight hours, with strength related to cure time, the eight hour type being strongest.

Shops catering to vintage gas model enthusiasts (radio buffs are not the only ones with an interest "golden years") carry several sizes of hard maple sticks (motor mounts) in one-foot lengths, and crosssections from about 3/8"x1/2" to 1/2"x3/4". These might be just the thing for cabinet reinforcement or other applications on antique radios. Some shops also carry thin sheets of walnut, mahogany and bass wood. Additionally, high quality plywood (usually birch) is generally stocked in thicknesses from 1/64" to 1/4" in sheets from 6"x12" to 12"x24". Thicker sizes are normally 5- or 7-ply, seldom available elsewhere.

In hardware, small quantities of machine screws are supplied down to 00-90 with hex, round, flat and fillister heads, and round and flat head wood screws as small as No.1. Nylon screws and washers, small brass eyelets, and blind (Tee) nuts are also available in small quantities and many sizes. Threaded inserts are short brass cylinders with a coarse thread-cutting spiral on the outside, and a machine thread on the inside. The insert is screwed into a pilot hole drilled in wood. A component can then be fastened to the anchored insert with a machine screw, for applications where the part must be frequently fastened and removed from a wood cabinet or breadboard.

Ever want a heat gun but couldn't afford the steep price of a commercial grade? Get one in a hobby shop for about \$20 which will be adequate for most radio purposes (the intended use is to shrink plastic covering on model airplanes).

Where does one find these marvelous model shops? Fortunately for most members of DVHRC, the most convenient store is also the best:

Penn Valley Hobby Center
837 West Main Street
Lansdale, PA 19446
(215) 855-1268

Others, though not quite as good as Penn Valley, but perhaps more convenient for you, are listed below. Hobby shops keep notoriously unusual business hour, so call any you plan to visit before making the trip.

Creek Hobbies
123 Creek Road
Mt. Laurel, NJ 08054
(609) 722-0489

Iron Horse Hobby House
60 South 6th Street
Reading, PA
(610) 373-6927

J.C. R/C Hobbies
County Line and York Rd.
Warminster, PA 18974
(215) 672-5200