

# Wright Ahead

Christmas 1965



THE HEAD WRIGHTSON HOUSE MAGAZINE

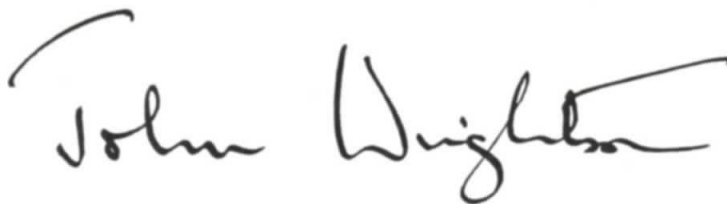


## The Chairman's Message

During the past year we have seen more and more evidence of the difficulties that this country of ours is experiencing in adjusting itself to the needs of a rapidly changing world. This should not trouble us since it has always been a characteristic of Head Wrightson that we have not only persevered but have been prosperous in the face of adversity.

If we look back over the years and consider how Head Wrightson has grown by the continuing efforts of our parents and grandparents we can learn a valuable lesson. The resilience, which has been a feature of our progress has been due, in a large measure, to the good faith and loyalty which have been our tradition ; these qualities have stood the test of time and I would commend them to you, at all levels, throughout the company.

As I offer you my warm greetings for Christmas and the New Year I am confident that we can rely on these same qualities which have always conferred success on our efforts in the past.

A handwritten signature in black ink that reads "John Wrightson". The signature is written in a cursive style with a large, sweeping initial 'J' and a long, horizontal flourish at the end.

Front Cover :  
The Friarage — Yarm-on-Tees.

Inside Front Cover :  
Mr. Jim Howcroft — Fitter,  
Research and Development Division.

Inside Back Cover :  
Mr. Billy Liddel — Burner,  
Head Wrightson Steel Foundry, Thornaby.

Back Cover :  
Beehive Inn — Near Whitby.

## Readers write

### *Report on visit to Australia*

by JOHN PITCHFORD, Head Wrightson & Company

Arrangements were made by the English Speaking Union for one hundred and twenty students to spend a working visit to Australia. My first contact with the students was at a reception at Dartmouth House organised for the students so that they could get to know each other. Previous to this Mr. Holland of Head Wrightson London office, whom I met on arrival in London, had kindly agreed to act as sponsor's representative for John Hughes and I. The reception was a great success, commencing at 6-30 p.m. and ending about 9 p.m., after which John and I endeavoured to see as much of the city as possible. This took up the remainder of the evening, and we returned to our hotel hoping for a few hours sleep before the flight the following day.

Next morning we returned to Dartmouth House to receive our final instructions for the flight, after which we made our way to the airport where a Boeing 707 was waiting for us. The flight took about thirty-six hours and made stops for fuel at Rome, Athens, Teheran, Karachi, Bangkok, Singapore, Djakarta, Darwin and finally Sydney. As we were not allowed to leave the airport at any of these places, there was very little to be seen. We arrived in Sydney somewhat tired after an uneventful journey. At Sydney airport we were met by a number of TV reporters and journalists, after which we were taken to the University of Sydney where Mr. K. Thomas of Head Wrightson (Australia) was waiting for John and I.



John Pitchford



John Hughes

At the University we found the E.S.U. had arranged for us to be made honorary members of the Y.M.C.A., and I would like to mention here that both organisations treated us with the utmost kindness during our stay in Australia. All kinds of social activities were arranged for the students by these organisations, and they included, visits to the surrounding places of note; dances, parties and sports.

On starting work at Head Wrightson (Australia) we were interviewed by Mr. Sharples, who allocated us our various jobs. My work entailed modifications to existing shear lines at Australia Iron & Steel Company, Port Kembla, and I visited this place to gain practical knowledge of the operation of Head Wrightson shear lines and associated equipment. I also took advantage of this visit to see as much as possible of the Port Kembla works.

My next visit was to Newcastle, which is one hundred miles from Sydney, to see some of Head Wrightson cooling towers. Unfortunately, being so far away, the visit was rather short. I also saw Corrimal Colliery which is near Port Kembla, where I had the opportunity of seeing the operation of a coal washing plant. A few days later I was able to go down this mine, and had the interesting experience of seeing the lay-out and operation of the mine.

This was followed by a visit to the Australian Atomic Energy Establishment at Lucas Heights. Australia has no commercial reactor, but they do have one which is used solely for research purposes, and the production of isotopes. On entering the Establishment, John and I found the security precautions very stringent. We were assigned a guide, who took us first to the main reactor, where we had to dress in white coats and shoes as a health precaution. We were assured that there had never been any accidents, so we were quite safe. I found the tour round this Establishment very interesting, but would have liked more time to absorb everything that I saw.

My next place was Whyalla in South Australia where I stayed a week looking round the B.O.S. Plant, Soaking

Pits, Scree Ore Plant etc. I had seen the L.D. converters being made at Thornaby some time ago, and had thought them rather large, but seeing them assembled they appeared dwarfed by the rest of the equipment. The visit to Whyalla was by air, and I was able to call at Melbourne and Adelaide on the way there, and the return journey took me to Canberra. I took the opportunity of sightseeing at all these places.

At this point I would like to express my appreciation of the kindness and interest shown by the staff of Head Wrightson (Australia), who spared no effort to make my visit worth while, and to make me feel at home.

Taking the other side of my visit to Australia, we spent many hours sightseeing, swimming, bush walking around Katoomba, and camping. We went gold prospecting in the Turon Valley and much to our surprise found some gold, but the amount was very small. The swimming was mainly at Bondi beach. On my first visit to the beach I was surprised to find it almost deserted, but then I remembered it was winter and 70° was far too cold for the Australians. I also went swimming at the other beaches, and found it a new experience to swim in large breakers. I personally liked Palm beach, about 4 miles long and lined with Palm trees.

I was fortunate enough to be able to take a fortnight's holiday whilst in Australia, and, so as to see as much as possible, John Hughes and I decided to hitch hike the 1,800 miles to Cairns in Northern Queensland. We made it in about four and a half days, as we were never at a loss for lifts by lorry or car. At Cairns we parted company and I met a party of students and spent the rest of my stay in Cairns sightseeing, swimming, fishing and sunbathing. I returned to Sydney by air, sorry to leave the tropics.

During the whole of our three months stay the weather was ideal, even though it was the Australian winter. The mid day temperature was around 70°. The nights, however, were rather cool.

The main cities in Australia are very little different from those in this country. It is only when one starts to travel further afield, that one sees the characteristic Australia with its wide spaces and long distances between townships, which the Australians take for granted.

I spent my last few days at Head Wrightson's, Sydney office before returning home, and said goodbye with regret at leaving the Australians and their generous acceptance of our visit.

FROM H.W.P. LONDON

## *Engineering as a fine art*

Whilst hardly any artist could be an engineer, it will doubtless be clear to every reader of this magazine that an engineer in fact is an artist and his work is fine art. The very essence of his profession is deeply rooted in the spheres of art — the word engineer being derived from the old French word *Engigneor*, which in turn has its origin in the Latin word *ingenium*, the connection of which with ingenuity is obvious.

You can easily spot an artist in the street, or in a coffee-bar where he has to spend his days to live up to the artistic tradition and reputation, but an engineer has no outward characteristics; all his power of imagination and ingenious thinking is kept inside him under control and finds its expression within the strict limits

of standards and specifications. The strict control also affects the appearance of an engineer who, thank Heaven, usually is clean shaven and reasonably tidy in contrast to some of the Chelsea artists whose exterior it would be too repulsive to describe. Another difference is the engineers' marital status. It is observed that individuals who have to base their living on their intense thinking and transforming thoughts into solid and reliable results for the benefit of other sections of the human community have either a low resistance to female techniques in capturing bachelors, or they simply find it convenient to have a good own home, cleanly packed sandwiches for elevenses and various comforts unknown to those who face an easel instead of the drawing board. There is a fundamental difference between the working hours of an artist and an engineer: along with many thousand others, the engineer hurries to his office and faster still from his office at regular times, but the artist knows of no convention of this sort.

Where several types of engineers assemble under one roof, the fine art of controlling the ingenious urge will be thoroughly sorted out and neatly labelled to form suitable matter for analytical study and definition. There is the whistling section of draughting engineers — their most frequent tunes being *Rule Britannia*, *Torreador* song from *Carmen*, *Marseillaise* — entirely out of tune in the "qu'un sang impur" part—: The whistling keeps the ingenious man from smoking and he is able to keep a clear head when all about him are losing theirs and blaming it on him (Kipling). Another clean, non-smoking section are the chemical engineers, but it must be realized that other properties may show enormous internal differences, such as exist between normal octane and iso-octane. There has to be a solid internal wall between this section and the instrumentation engineering with a high combustion rate, although the boiling ranges and cracking curves of mechanical engineers make the latter favourites to win the title of providing the thickest possible experimental atmosphere for ventilating and air-conditioning studies. Cooling equipment engineers move about in a style — well, entirely empirical and pragmatic. There is nothing even remotely arty about consulting engineers who are brief, alert and immensely effective. The sales department, quite understandably, groups the most handsome and elegant specimens, those dangerous types trained in market and other psychology and indoctrinated by the top cells in the beehive to practise "success through friendly smile" policy all around. In an eventual beauty contest among the whole community the sales people would secure at least four places and their secretaries would do similarly well in the ladies' event. The cost engineers have the unpopular task of imposing cuts on many an extravagant dream or scheme of project engineers, or other departments, and comply with various economic and conventional interests, as well as attacks from all the aforesaid sections in more or less combined campaign. They do not show off their psychological experience but they have to apply it more often than anybody else.

In order not to feel out of place in a House of Engineers the administration itself undertakes some human engineering. It makes frequent changes in the position of the various cells and under-cells, keeping the reasons for such moves undisclosed.

This writer must remain anonymous, but knows full well that the supreme art lies in achieving harmony in the beehive; for this one needs to be a TURNER into the right direction of those who deviate, and one must TOW those who are in danger of approaching a vortex.

## "Vintage Gem"

by Mr. N. HUTTON, H.W. Teesdale

The car seen on this page is very old and historic and was, until two years ago, in regular use in the Stockton area. Investigation into its history is still far from complete, but to date it has been established that it was one of the prototype racing and track cars, built at the beginning of the Aston Martin story.

The company was founded by two of the early motor engineers; Mr. Bamford and Mr. Lionel Martin, as Bamford and Martin Limited, in a workshop in Kensington, London.

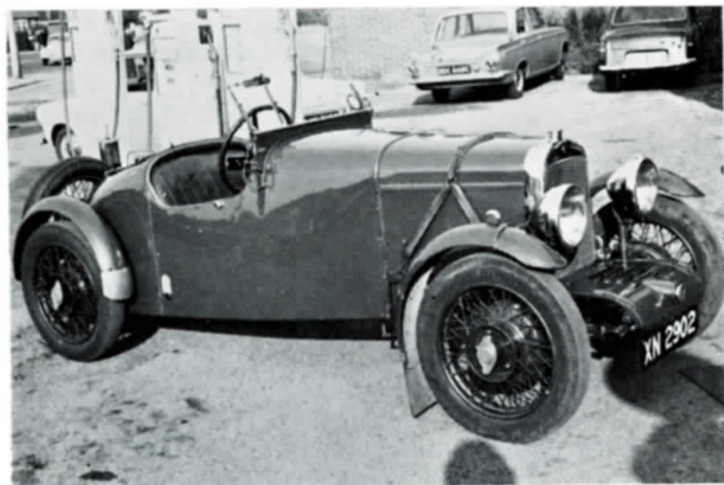
Prior to the first world war they began improving the performance of Singer cars for competition work, and, not satisfied with the basic material, decided to build their own cars. When work restarted after the war, some development work was done on mock-up cars, and the first model of what was to become a production car was made in 1921.

A number of variations were produced between 1921/22; amongst them two cars christened respectively "Bunny" and "Nigger." These two cars were almost identical with the exception of the shape of the tail, and both made a name for themselves as the fastest light cars in existence, holding their own against many larger and more powerful machines. The illustrated car is "Nigger" which was "lost" for over thirty-five years, and apart from detail alterations, is in more or less original form.

The car has a four cylinder side valve unit of 1486 cc and of 66.5 mm bore and 107 mm stroke fed by a large bore S.U. carburettor and driving a four speed and reverse "crash" gear box via a Hele-Shaw industrial clutch and fabric flexible coupling. The recorded lap speed on the old Brooklands track was a fraction below 90 m.p.h. on a top gear ratio of 3.3:1, third gear 4.3, and second 5.3:1. The steering has three-quarter turn from lock to lock via a Marles steering box and has suspension of the "solid" variety. Trafalgar Street does not improve the condition of either one's spine or back teeth!

The car was driven mostly by Captain J. C. Douglas, who had a long record of competition successes with it, and was at one time his personal property.

It fell upon evil days in the early 1930's, having many owners in a very short period of time, until bought by Mr. Charles Tealey of Norton in the mid 1930's. He restored the car to its original beautiful condition and ran it until two years ago. I knew of this car in the



"Nigger"

early 1940's when Mr. Tealey's son came to Dorman Long & Company to serve his apprenticeship, and always coveted it.

In August this year Harold Crier of H.W.I.S.W.E.L. Inspection Department told me of an old Aston Martin owned by a friend of his father's, which was for sale, and a week later a twenty-five year old wish came true. Research into its early history is still going on, and meantime I enjoy a very Spartan once a week ride, and marvel at the hardiness of the early motorists.

## A Stockton Skirmish

by THOS. H. CUMMINS, Teesdale Bridge Yard

As an historian of the town I have a fund of anecdotes and old stories, tales my father and grandfather told me in the winter evenings of long ago. Some, thrilling and blood curdling, like the Black Dog of Portrack, and the Ghost of the Grey Lady at Portrack Grange Farm, formerly a house of the Carmelite Order of Nuns.

No tale thrilled me more as a boy than the story of the "Stockton Skirmish," or "The Bloodless Victory." To the best of my knowledge this story has never appeared in print and I have found no note of it in our historical volumes.

In the Napoleonic Wars, men were very reluctant to join the navy, as the conditions were probably the worst in the world. A man could be sentenced to twenty-five lashes for merely looking an officer in the face, which was classed as insolence. The men were treated like dogs, and it is small wonder that the hated Press Gang had to be brought into being to press able bodied men for the navy. No man joined the navy of his own free will!

One fine day the Press Gang's cutter was reported in the Tees off Blue House Point near Portrack. Later in the day the crew landed, making a sortie and capturing several men in the vicinity. The news quickly spread through the courts and alleys along the quayside.

Swiftly the women gathered at the bottom of Finkle Street, weeping and wailing. The Press Gang allowed them to say a last "goodbye" to their husbands and brothers, while the officers adjourned to the nearby Custom House Tavern.

When the women came to say a last farewell to their relatives the password was "fly," — not goodbye, and, turning to the Press Gang, the women drew from their dresses a secret weapon, the pepper box, swiftly dashing the contents into the navy men's eyes. Pandemonium reigned; the men seized their one chance of freedom, and away they sped, some up Breaky-Neck Yard, others through the Wasp Nest, and the maze of alleys that constituted the Stockton of those days. Every man got clean away, but it is to the credit of the women that the "Bloodless Victory" was won.

The Press Gang came again stronger than before, but all Stockton were on the qui vive, not a man except cripples and the aged were to be seen. The men had learned a lesson, thanks to the scheming of their women-folk.

For years afterwards, the story was handed down from generation to generation and told around the fireside in little kitchen houses in yard or alley, of how the women won the "Stockton Skirmish" or "The Bloodless Victory."

### Footnote.

Strange as it may seem, the Impress Act has never been repealed, and it is still lawful to sieze or press men for the navy.

Copyright

# Con Man "conned"

by D. R. TALLET, H.W. Teesdale

A true story

It was one day in August. To be precise, a Saturday; and there was a race meeting on Redcar Race-course that afternoon. I met a friend in town that morning who told me he had just had a strange and interesting experience so I asked him to tell me about it.

"Well," he said, "A chap just came up and asked if I was going racing this afternoon. He was a little tubby fellow about fifty with a ruddy complexion, a nice line in brown Delta-brim trilbies, a blue pin-striped suit, and a nice white shirt, but his shoes had seen better days. Rather incongruous I thought. He wore a huge pair of binoculars around his neck to add to the effect of a racing man. 'I've got horses running here today and if you are a betting man you can do yourself a bit of good. Are you a betting man?' he said."

My friend told him he occasionally had a bet, but did not think he would be going that day. However, he wanted to draw this character on, who then told him "Now I can give you the names of two certs for today." He looked furtively around him to left and right and then proceeded to take a pencil and paper from his pocket. "How much are you prepared to give me for this information? Would £1 be alright?" My friend hesitated. "You see I give this pound to the driver of my horse box. It is a bit of pocket money for him."

"A likely story," thought my friend and making some excuse he walked off and left the fellow.

Now, for the sequel to this tale. I left my friend and continued my shopping in the busy High Street. An

hour or so later I spotted our "Racehorse Owner" on the promenade. I followed him for twenty minutes at a safe distance. He was giving the same "spiel" to several prospective "customers" — with little success I'm afraid. I then dismissed him from my mind and went about my business.

Looking in a shop window some time later, I felt a tug on my sleeve. On turning, here was our friend, the "Racehorse Owner." "Can I have a few words with you sir?" I listened patiently to his tale, told, as he thought, so convincingly.

When he reached the point of giving the pound note to the driver of his horse box, I interjected. "You have now reached the part of your story where you ask me for a £1 for the driver of your horsebox."

The fellow's face was a picture of amazement. How on earth could this passer-by know this? Wishing to scare the crook and to teach him a lesson I followed up with "You don't know who I am do you? I have been following you this last half hour and watched you stop five men with the same tactics." My bluff was working.

I looked over the road, to where, by chance, a tall young fellow was standing by a public phone booth. "See that young man over there? He's from the C.I.D., the same as I am. In a moment now he will look across for my signal. We've had you under observation all the morning." By coincidence the fellow near the box looked in our direction. With that our little "Con Man" turned and fled, his little legs pumping up and down as fast as they could go, and his binoculars bouncing up and down on his paunch as he ran. My bluff and his guilty conscience worked wonders.

I've heard of the four minute mile: I've now seen it run.

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## Head Wrightson Works' Band

The works' band had a number of engagements during the summer months, giving concerts in parks and also in churches, the latter being to raise funds for special efforts. The last engagement was at St. John's County Review at Mulgrave Castle, where the salute was taken by Rear Admiral R. S. Wellery, C.B., D.S.O., C.St.J.,

who afterwards congratulated the band on their standard of playing. The band are now looking forward to an audition for Tyne-Tees Television to take part in programmes commencing early in the New Year.

Mr. J. E. Burton,  
Head Wrightson Machine Company



The works' band

# Personality

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## Robert Hornshaw

When the opportunity arose to write an article about Bob Hornshaw, I was very pleased to be able to do so, as this was something I had been wanting to do for a long time.

Robert (Bob) Hornshaw is probably the most universally liked and respected man in Head Wrightson. He is completely self-effacing, and modest about his many accomplishments. The various examples of his work are monuments to his inherent craftsmanship and superb skill.

Bob was born at Tickhill (nr. Doncaster) and educated at The National School — Tickhill. He was apprenticed to Rhodes Motors Limited, Doncaster in 1910 — manufacturers of electric motors, switch gear etc., and worked in the machine shop, fitting bay, armature shop, tool room and brass finishing shop. He finished as works inspector at the age of twenty-one or twenty-two.

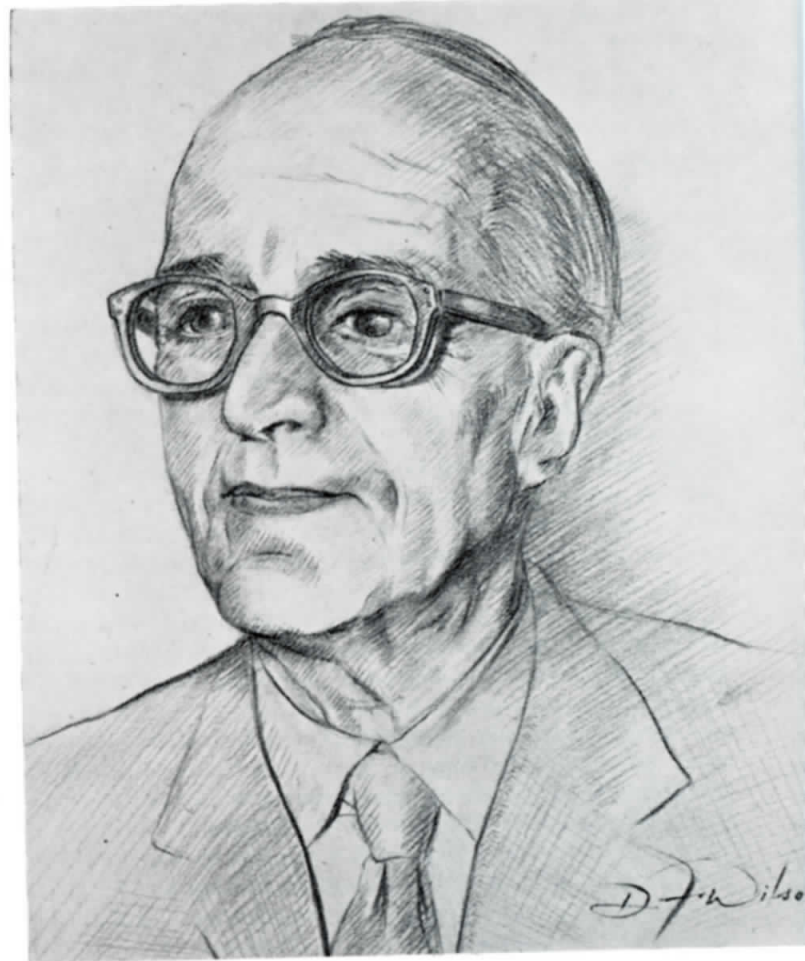
With the advent of the First World War, he joined the R.F.C. (later R.A.F.), where he worked on aero engine overhaul and repair for all the engines of the period.

After demobilisation Bob worked at a colliery in Nottinghamshire making apparatus for sinking shafts, and drilling rock for the shaft-sinking. He also worked on the upkeep and repair of rolling-stock, plant and power houses. Following this, he was employed as manager in a button, buckle and slide factory (Plastic) in Sheffield. This was before the day of moulds and powder resin, and all buttons were turned. Automatic machinery (German) was maintained and repaired by him. During the depression he worked at Sheffield Tool Works, and also had a short spell setting industrial diamonds for grinding work.

Bob joined Head Wrightson & Company in 1935, when he started in the heavy machine shop, Teesdale, under Mr. Lawson. When the war came, he was an inspector in the bomb shop, but when Mr. W. Simpson left Teesdale for work in Chesterfield, he took charge of the shop, and continued in this position until the end of the war. After the war, he was shift foreman in the heavy machine shop, from where he moved to the Planning Department, and finally, to the Apprentice School, where he is today, training the apprentices in various aspects of workshop practice.

Looking back over his years of service, Bob considers his present job in the Apprentice School the most rewarding. Recalling the hit and miss apprenticeships of past years, the opportunity to be able to help today's young lads has been very satisfactory.

His obvious skill as an engineer does not constitute all Bob's talent by any means, however; he is a widely travelled and well read man, and is able to converse intelligently on such diverse subjects as mineralogy, horology, gemmology, entomology and geology, as well as many subjects of more general interest. He did, in



Mr. R. Hornshaw

fact, join an evening class at one of the local colleges only a couple of years ago, to study geology. While he may not have been the youngest member of the class, I am sure he was one of the keenest and most astute!

His constant thirst for knowledge is a source of amazement to most people. A case in point was when someone mentioned bees and bee-keeping to him. Bob, who has never kept bees, went into a long discourse on the subject as though he was a qualified apiarist.

When confronted with a job, the more difficult and challenging it appears, the more Bob will enjoy tackling it.

In these days of mass-production techniques, and slipshod "that's-near-enough" workmanship, Bob remains one of the true craftsmen who can lovingly, and with infinite care and patience, turn out a job which will be as near perfect as it is possible to get. Anyone who has seen his work will appreciate what I mean.

In conclusion I would like to say that I am glad to be able to pay tribute to a fine craftsman, all-round 100% "Character," and friend — Bob Hornshaw.

J. T. King  
Assistant Publicity Officer  
Editor — Wright Ahead.

### Acknowledgement

The editor wishes to acknowledge the help of Mr. D. Wilson in supplying the fine sketch which appears with this article.



# A Christmas Story

## Silent Night — “ Song from Heaven ”

On the 24th of December, 1818, in Hallein, a village in the Austrian Alps, Father Joseph Mohr sat preparing his sermon for the midnight service. In the valley below the scene was lit by the glow of dozens of rush lights, carried by the children, on their way along the frozen paths. This was Holy Eve, and they were allowed to stay up for the Midnight Mass.

While the young priest sat reading his Bible, he came to the story of the shepherds in the fields. He had just started reading, when a knock sounded on his door. It was a peasant woman wrapped in a coarse shawl, who told him of a child born earlier that day to a poor charcoal-maker's wife living on one of the highest alps in his parish. The parents had sent to ask that the priest might come and bless the child.

Father Mohr was strangely moved on his visit to the poor hut, and he kept remembering the story he had been reading, and the words suddenly seemed to have new meaning for him.

To Father Mohr a Christmas miracle had come to pass. After the midnight service he tried to put down on paper what had happened to him. The words kept turning to verse, and when dawn came, Father Mohr had written a poem. On Christmas Day his friend, Franz Xavier Gruber, music teacher in the village school, composed music to fit the verses.

Village children heard the priest and the teacher singing. Gruber played the guitar, and they both sang. They did not know that this was to become a great Christmas hymn, known in all lands.

The four Strasser children, Caroline, Joseph, Andreas and little Amalie, had the most beautiful voices in Zillertal Valley, in the Tyrol. Every spring the four children travelled to Leipzig to the trade fair, to show the gloves which their parents made, and which were much sought after. It was an exciting time for the children, but sometimes they felt lonely in the city.

When this happened they sang together, as they did at home, and the song they sang most was “ Song from Heaven.” The children had learned the song from Karl Mauracher, famous organ builder, who in turn had learned it from Franz Gruber. Gruber had played the song for him after having the village organ mended by Mauracher, who had asked if he could take the song with him, as he was sure the people where he lived would like it.

The children found that the song was very popular in the city, and many passers-by stopped to listen to the lovely melody. One day an elderly gentleman stopped to listen. This was Mr. Pohlenz, Director General of music in Saxony. He gave them tickets to one of the concerts that he conducted regularly at Leipzig. The children were delighted at this.

When they had seen the concert, Mr. Pohlenz announced that there were four children present, with the finest voices he had heard in years. They might be persuaded to sing for the King and Queen of Saxony, who were present, and the audience, some of their Tyrolean songs.

The announcement amazed the youngsters, whose faces flushed as the people began to applaud.

They sang “ Song from Heaven ” first, to rapturous applause, then all the others they knew, and then sang “ Song from Heaven ” again.

The audience were still applauding when a gentleman announced that Their Majesties desired to receive the singers. The King told the children that he had enjoyed their singing very much, and especially the last song. He asked them if they would come to the castle and sing it at Christmas for their children.

So it was that on Holy Eve of the year 1832, in the Royal Saxon Chapel in Pleissenburg Castle, the Strasser children sang :

Silent night, holy night —  
All is calm, all is bright,  
Round yon Virgin, Mother and Child ;  
Holy infant, so tender and mild,  
Sleep in heavenly peace —  
Sleep in heavenly peace.

On that Christmas Eve the song left Austria, and spread quietly round the world.

## Christmas Posers

### THINK BIG

1. Where is the finest tomb in the world ?
2. Which country has the highest cathedral spire in the world ?
3. Who built the longest wall in the world ?
4. Where is the world's largest palace ?
5. Where is the longest ship canal in the world ?
6. Which country boasts the biggest park in the world ?
7. Which is the world's greatest desert, and what is its estimated area ?
8. Where, excluding the island continent of Australia, is the world's largest island ?
9. Which building houses the world's largest library ?
10. Where would you find the biggest bell in, (a) the world, (b) England ?
11. Where is the highest town in the world ?
12. Where would you find the world's deepest waterfall ?

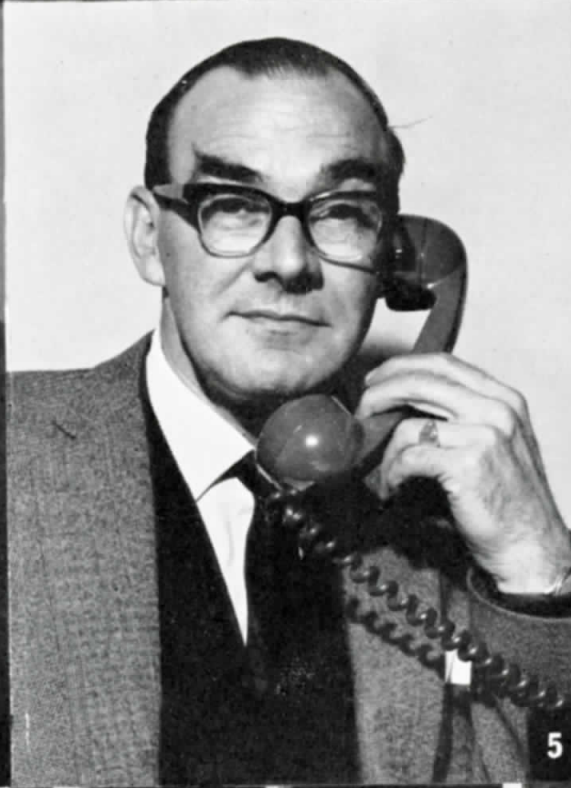
### EVERYBODY KNOWS — OR DO THEY ?

Most people think they have a fair idea of the Seven (Ancient) Wonders of the World. How many of the seven can you name ?

### MORE PUZZLERS

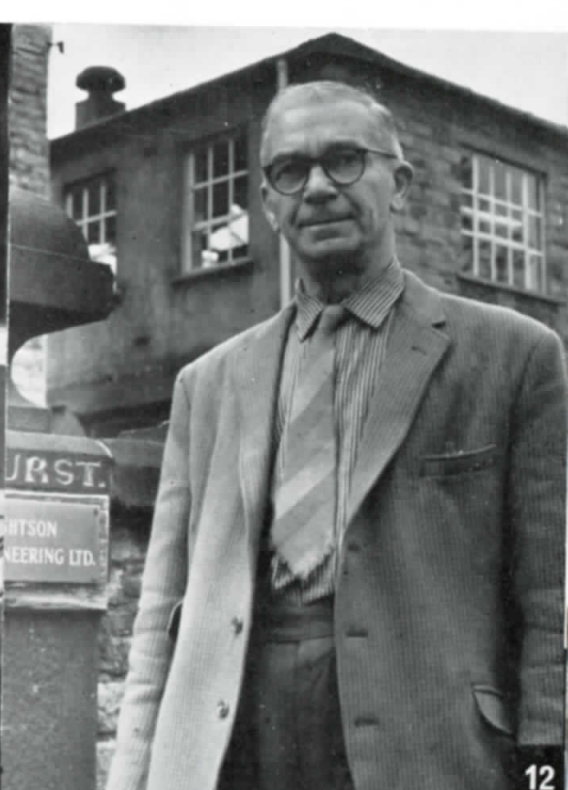
1. The following words end in —gate. See how many you can solve.
  - (a) The gate that ties together.
  - (b) The gate that wrinkles up.
  - (c) The gate that punishes.
  - (d) The gate that scolds us.
  - (e) The gate that is a fugitive.
  - (f) The gate that goes to law.
  - (g) The gate that is a deputy bishop.
  - (h) The gate that kills our germs.
  - (i) The gate that urges us on to crime.
  - (j) The gate that has a roof or covering.
  - (k) The gate that announces.
  - (l) The gate that is a ship.
  - (m) The gate that is a precious stone.
  - (n) The gate that is in Surrey.

More Puzzlers continued on page 15, answers on page 16



# Sheffield stalwarts

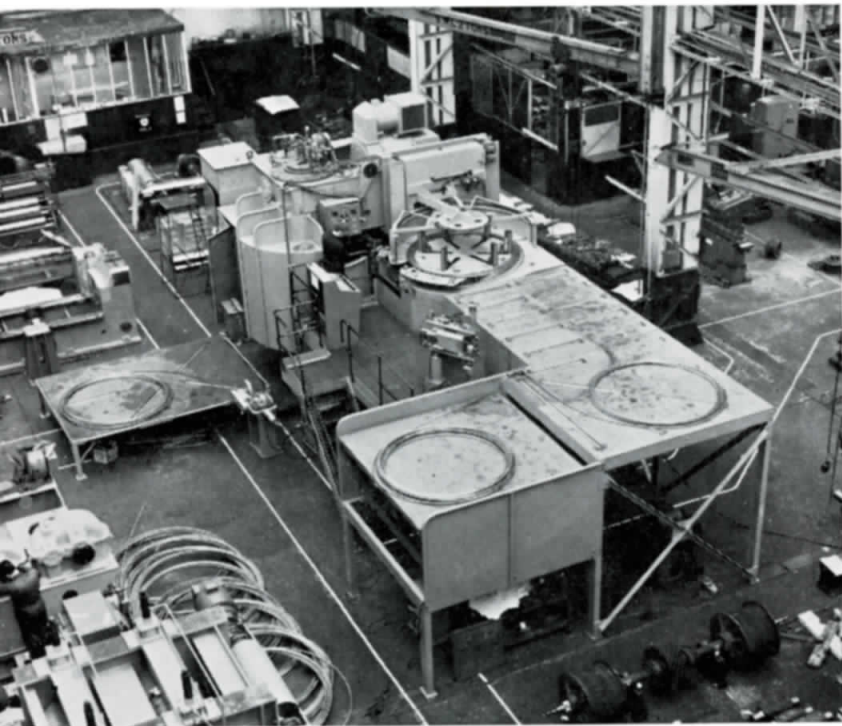
1. Mr. L. W. Needham, Managing Director.
2. Dr. F. Worthington, Head — Technical Department.
3. Mr. A. G. Self, Tech. Advisor to Mr. Needham.
4. Miss P. L. Shepley, Secretary to Mr. Needham.
5. Mr. R. Oxley, Accountant.
6. Mrs. E. Burrows, Comptometer Operator.
7. Mr. G. Gibson, Technical Assistant.
8. Mr. H. D. Walker, Chief Draughtsman.
9. Mrs. C. Glaves, Typist.
10. Mr. D. V. Williamson, Design Engineer (Production).
11. Mr. G. Cusworth, Design Engineer (Schemes).
12. Mr. T. Foy, Caretaker.
13. Mr. H. H. Bedwin, Erection Manager.
14. Mr. J. P. Elliot, Chief Estimator.
15. Mrs. J. Evans, Head Typist.



# News

HEAD WRIGHTSON MACHINE COMPANY

## Bullblock for Spain



Aerial view of bullblock in Machine Company works.

Design and manufacture of the first bullblock to be built by the Machine Company was completed during the latter part of the year, and leading tube drawers in this country and in Europe were invited to a demonstration of the machine in our shops during November.

This unit, which is for processing coiled tubes, forms part of the seamless copper cold tube rolling plant at present approaching completion by us for Sociedad Espanola de Construcciones Electro-Mecanicas, S.A., Spain.

Briefly, after cold rolling, tubes of up to 200 ft. in length are coiled and fed into the bullblock where tube diameter and wall thickness are reduced by drawing through a die, the drawn tube being recoiled on the drum of the bullblock and discharged from the machine when drawing is complete.

The machine has a drum diameter of 5 ft. 6 ins. and is capable of a maximum drawpull of 5 tons, drawspeeds of up to 1,900 f.p.m. being attainable. One hundred and eighty pound coiled tubes enter the machine with an outside diameter of 1½ ins. and are reduced in size to an outside diameter of .25 ins. in nine or ten passes.

This method of tube drawing is particularly advantageous where long lengths are concerned, and its use in conjunction with cold tube reducing constitutes the most up to date and efficient high production method of making high quality small diameter non-ferrous seamless tubes.

## Plate Leveller at Firth Vickers

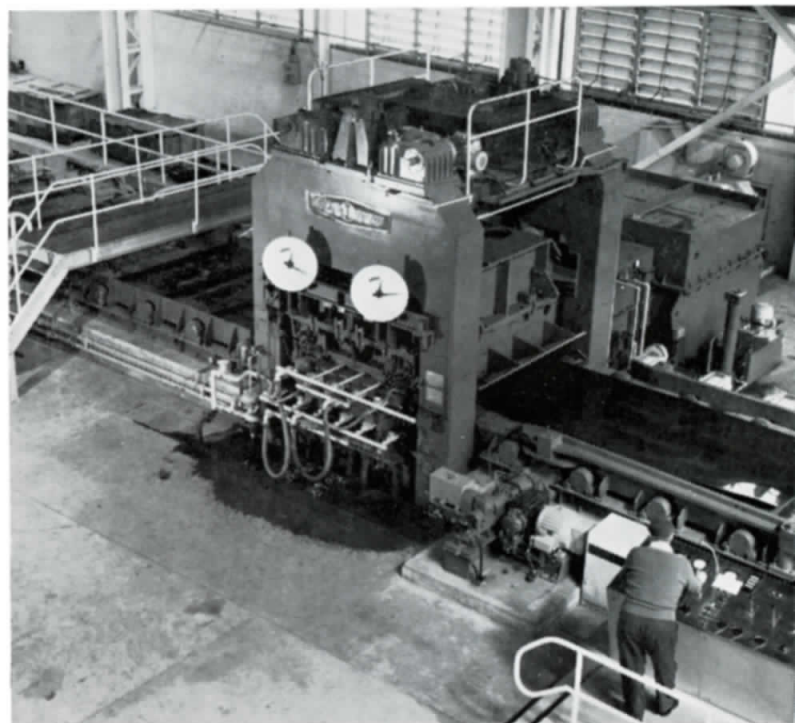
On 14th October, Firth-Vickers Stainless Steels Limited held the official opening of their new wide plate mill, to which they invited a large number of their customers, friends in the steel industry, and suppliers of the equipment.

This plant is located at their Shepcote Lane Works in Sheffield, and it is designed to meet the increasing demand from the chemical, dairy, textile and other industries for larger sizes of stainless steel plate and sheet. The equipment includes two plate levellers supplied by The Head Wrightson Machine Company.

The machine illustrated in the photograph flattens plates up to 1 in. thick by 83 ins. wide coming from the annealing furnace and water quench sprays. It has 12 in. diameter rolls, and weighs 100 tons. The other machine supplied has 6½ in. diameter rolls, weighs 70 tons, and it is the final piece of finishing equipment at the end of the process line, handling cold plates from ¼ in. to ½ in. thickness by 83 in. wide at speeds up to 100 ft. per minute.

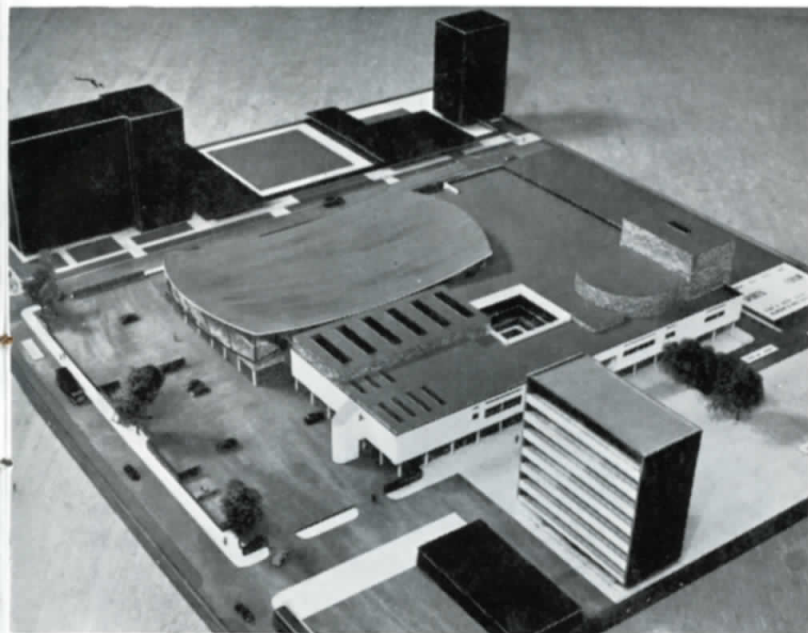
Both machines are backed-up levellers designed for flattening the plates in one pass wherever possible. They have cradle mounted rolls for quick changeover, hydraulic balancing of the top beam, motorised roll adjustments with dial indicators, double helical drives, and motorised lubrication systems for the roll bearings and gears.

They are similar in basic design to hot and cold plate levellers which we have supplied over the past few years to Consett Iron Company Limited (3), South Durham Iron & Steel Company (3), Colvilles (2) and Algoma Steel Corporation of Canada. Further machines are at present being installed at Skopje, Yugoslavia, and at the Lackenby Works of Dorman Long. At present under construction are three plate levellers for Davy & United Engineering Company for inclusion in the new Rautaruukki plate mill in Finland, and one for Appleby-Frodingham Steel Company, Scunthorpe.



The Head Wrightson Machine Company plate leveller installed at Firth Vickers Stainless Steels Limited.

## Billingham Sports Forum



Model of Sports Forum.

The new Billingham sports forum, in which Head Wrightson Teesdale are responsible for the structural steelwork, will feature the Scandinavian style of roofing system known as Jawerth. With this system, the need for central pillars or supports is eliminated, as the roof is supported by means of steel cable.

The gentle curve of the roof over the stadium will span 240 ft. with a width of 132 ft. Nine cable trusses are being used at 11 ft. centres.

The upper cables are anchored to inclined steel arches which are formed out of 14 in. by 16 in. universal column steel sections weighing 264 lb. per ft. with steel flat ties and struts keeping the upper and lower arches apart. The nine lower cables are anchored similarly at one end, but at the other are anchored to the main building.

The breaking load of the upper ropes will be some 125 tons and the lower ropes, 54 tons.

The forces of the arches are transmitted to the ground through four 87ft. long raking columns which are carried on piled foundations. Each base has one compression pile with a downward thrust of 350 tons and two tension piles with an upward lift of 230 tons.

### ANGLED COLUMNS

The four columns rake at an angle of approximately 37°, two on one side being exposed, the other two running through the building.

The roof structure itself is covered by a proprietary steel trough deck with insulation board and waterproof membranes. These span between the cables and are U-bolted to them.

The architects, Elder and Lester, A.A.R.I.B.A., Middlesbrough, who have also been associated with much of the planning of the town centre, have attempted to obtain a feeling of a "floating roof." This has been accentuated by the use of a separated cladding structure from the roof with clerestory lighting.

The absence of internal columns has resulted in a 180 ft. by 80 ft. rectangular area of ice. Under the ice, a

special surface is being laid and when the ice is thawed, this can be used for other sports, tennis, basketball and the like.

Tiered seating for 1,000 is provided along one side of the rink. Provision is made for seating a further 1,000 on the other three sides if necessary. A bandstand, cafe and ancillary facilities will also be provided.

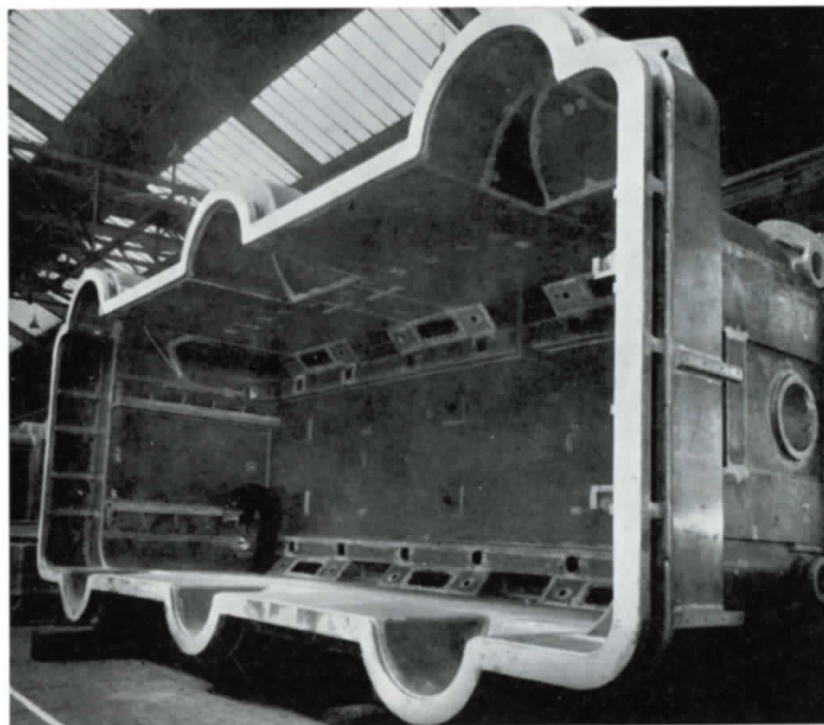
HEAD WRIGHTSON STOCKTON LIMITED

## Aluminium Transformer Tanks

Some very large aluminium fabrications in the works of Head Wrightson Stockton Limited have been made in light alloys instead of the traditional steel. Due to the increased physical size of electricity generating plant and transformers, weight has become a major problem and the use of aluminium in this case is contributing substantially to a much needed overall reduction in weight.

The photographs show one of two 500 MVA auto-transformer tanks in aluminium NP 8 supplied by Alcan Industries Limited. These tanks which are for C. A. Parsons & Company Limited of Newcastle-upon-Tyne, measure approximately 30 ft. long by 16 ft. high by 11 ft. 6 in. wide. The tank sides are mainly  $\frac{5}{8}$  in. plate and the base  $1\frac{1}{2}$  in. thick plate; 10 in. by  $3\frac{1}{2}$  in. aluminium channels were used as stiffening members and the connection flanges between top cover and main body are  $3\frac{1}{4}$  in. thick. The complete aluminium tank weighs approximately 22 tons; a similar size tank in mild steel would have weighed approximately 40 tons, so a considerable saving in weight was achieved by using aluminium.

The tanks are required to be manufactured and tested to a high standard of vacuum tightness. Tests will include a hydraulic pressure test and halogen gas probe test in Head Wrightson's works followed by a transformer oil test at C. A. Parsons works.



Aluminium transformer tank in Head Wrightson Stockton works.

# Personal

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## BIRTHS — CONGRATULATIONS

### H.W. Stampings Limited

Mr. and Mrs. Ronald Milburn — a daughter, Karen.  
Mr. and Mrs. Brian Clouston — a daughter, Melanie.

### H.W. Processes, London

Mr. and Mrs. David Steer — a son, Neil Edwin.

### H.W. Machine Company Limited

Mr. and Mrs. K. Jackson — a son, Michael Alexander.  
Mr. and Mrs. S. Thompson — a son, Steven.  
Mr. and Mrs. F. Flanagan — a daughter, Lorna.

### H.W.M.E.L. Sheffield

Mr. and Mrs. P. Balm — a son, Russell.  
Mr. and Mrs. G. Bloor — a son, Adrian.

### H.W.I.S.W.E.L.

Mr. and Mrs. G. W. Richardson — a son, David William.  
Mr. and Mrs. H. Moore — a son, Graeme Robert.  
Mr. and Mrs. M. Cook — a son, Martin Gary.  
Mr. and Mrs. T. Jones — a son, Craig.  
Mr. and Mrs. C. Jinks — a daughter, Angela.  
Mr. and Mrs. R. W. Oates — a son, Christopher.  
Mr. and Mrs. M. G. Street — a son, John Charles.  
Mr. and Mrs. K. Vernon — a daughter, Cathryn.

### H.W. Stockton Limited

Mr. and Mrs. D. Roberts — a daughter, Dianne.

## MARRIAGES — BEST WISHES

### H.W. & Company Limited

Mr. S. Chapman (Secretarial) to Miss E. Shepherd.

### H.W. Teesdale Limited

Miss P. Bateman (Purchasing) to Mr. K. Watts.  
Miss C. Brown (Purchasing) to Mr. T. Bateman.  
Miss J. Curson (Secretary) to Mr. R. Pallister (D.O.).  
Mr. P. Hart (Bridge Yard) to Miss E. Cunningham.  
Mr. H. Westwood (Bridge Yard) to Miss K. Dunford.  
Mr. W. Hardys (Bridge Yard) to Miss J. Laidlow.  
Mr. S. Grounds (Bridge Yard) to Miss M. Dickinson.  
Mr. T. Donachie (Bridge Yard) to Miss B. Longstor.

### H.W. Research & Development Division

Miss S. J. Crisp to Mr. P. Welsh (pattern maker — H.W. Stockton).

### H.W. Stampings Limited

Mr. J. W. Thacker (Purchasing) to Miss M. Simpson Craig.  
Miss J. Arnell (Sales) to Mr. C. P. Bennett.  
Miss P. Parks (Typing Pool) to Mr. A. Moy.  
Mr. P. Richardson (Die Shop) to Mrs. D. Wilson.

### H.W.I.S.W.E.L.

Mr. A. Robinson to Miss K. Harrison.  
Mr. R. C. Brooks to Miss B. Green.  
Mr. A. Mitchell to Miss I. Fenwick.

### H.W. Stockton Limited

Miss Y. Moore (Purchasing) to Mr. B. Gibson.  
Mr. T. Parkin (General Office) to Miss A. Jackson.

### The H.W. Machine Company Limited

Mr. J. Galley (Development D.O.) to Miss M. Newton.



Mr. and Mrs. Bateman



Mr. and Mrs. Watts



Mr. and Mrs. Welsh



Mr. and Mrs. Moy

RUBY WEDDING — CONGRATULATIONS

**H.W. Stampings Limited**

Mr. and Mrs. Jack Smith (Die Shop).

SILVER WEDDING — CONGRATULATIONS

**The H.W. Machine Company Limited**

Mr. and Mrs. J. E. Burton (Fitting Shop).

RETIREMENTS — GOOD WISHES

Mr. Jack Wright — Head Wrightson Teesdale (Bridge Yard).

DEATHS — SYMPATHY

**H.W. Teesdale Limited**

Mr. F. McDermont (Bridge Yard).

**H.W. Stampings Limited**

Mr. Norman Lutz (Blacksmith).

**H.W. Machine Company Limited**

Mr. D. Eccles (Sales Engineer).



Mr. and Mrs. Pallister

THE "GOLDEN" BOYS

The four Head Wrightson apprentices studying map references, are well on their way to receiving gold medals in the Duke of Edinburgh Award Scheme. The route they are planning for an expedition on the Yorkshire moors, (about 56 miles), will be submitted for approval to their army instructors, and also to the Duke of Edinburgh panel at Northallerton.

The boys hope to qualify for their Gold Medals in February next year.



Mr. and Mrs. Chapman



From left to right : Allan Moore (Head Wrightson Machine Co.), Owen Butler (Head Wrightson & Co.), Brian Bailes (Bridge Yard), Ian Dalrymple (Headquarters, plumber).

# Sport

## Bowls

Departmental Bowls Competition was again won by the Bridge Yard team without the aid of the star man Mr. M. Wilson.

Don Lackenby did well this year, winning the Shaw Shield. Well done Don! We hope you can do the same next year.

## Golf

We are again able to report increased membership and a successful season from this section.

Results of competitions held this year :-

Annual stroke play competition for

H.W. Challenge Cup

1st — R. Snowden (H.W. Iron Foundry)	93—20—73
2nd — M. G. Hipkins (R. & D.)	94—20—74
3rd — I. McDowell (R. & D.)	85—11—74
Best Gross Score — I. McDowell.	

Inter-Company Trophy

1st — R. & D. (M. G. Hipkins and I. McDowell)	148
2nd — H.W. Stockton (R. A. Shaw and A. Sowerby)	149
3rd — H.W. Teesdale (S. Butler and A. H. Vernon)	152

Singles Matchplay

1st — W. Kallagher (H.W. Steel Foundry)
Runner-up — R. A. Shaw (H.W. Stockton)

Intercompany Matches

Furness Shipbuilding Co.	6	H.W. 1
British Titan Products Ltd.	3½	H.W. 2½
Skinningrove Iron Co. Ltd.	5	H.W. 4
Ashmore, Benson, Pease & Co.	3½	H.W. 3½

Once again the major trophies have changed hands to different companies — a very satisfactory situation, and guaranteeing keen competition in future years.

The results of matches against other local companies are not as bad as at first sight, as we try to give all of our members a turn in inter-company matches, whereas the opposition generally raise the strongest team possible.

Following the success of last years series of golf film shows, the following have been arranged for this winter :-  
9th November, 1965

Carreras Sales Limited—Piccadilly Professional Tournament.

6th December, 1965

“Follow The Sun”—Ben Hogan’s life story.

24th January, 1966

1. “Wonderful World of Golf.”
2. Bobby Locke—“The Key to Golf.”
3. U.S. Masters 1963.

All employees of the company and friends are welcome to these shows held in Thornaby Cricket Club with a 7-30 p.m. start.

## H.W.M.E.L. Motor Club

The major local Night Rally, open to Sheffield and Area Motor Clubs was held in vile conditions — 120 miles of mist and ice on the High Peak moor tops.

George Pickin and Gerald Gibson took Premier Award, the Assam Trophy. H.W.M.E.L. also ran a driving test, open to the district and took four of the top places. Currently, certain members are attending a Police Better Driving Course — we hope their driving improves.

## H.W. Motor Club

SAFE DRIVING RALLY AUGUST 15th, 1965

In conjunction with the Stockton-on-Tees Accident Prevention Committee, the Head Wrightson Motor Club held its first ever Safe Driving Rally on Sunday afternoon, August 15th.

Winner of the event was Mr. B. G. Bembridge (H.W.I.S.W.E.L.) who, in addition to receiving an engraved tankard for the best employee also won two sets of safety harness and free fitting for the best overall performance!



Mr. B. G. Bembridge

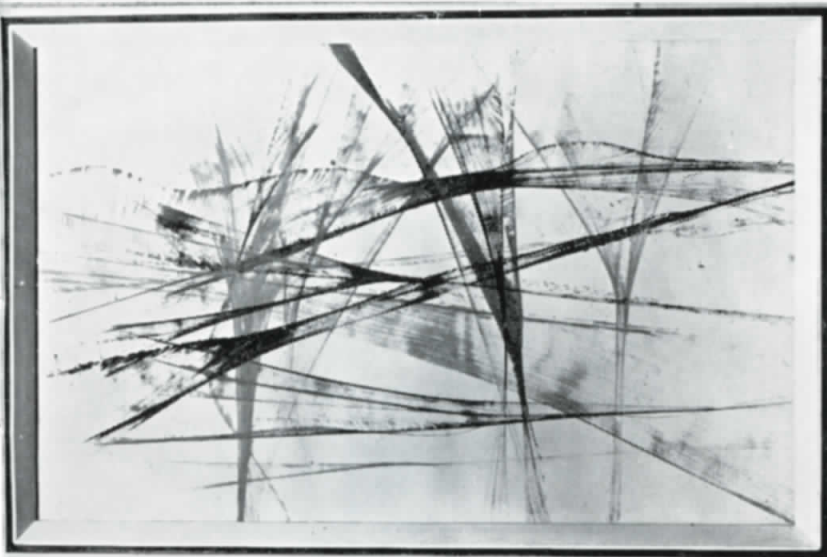


M. R. Pickard



# Bits and Pieces

HEAD WRIGHTSON STAMPINGS LIMITED



“Composition with Ochre”

Painting in new Head Wrightson Stampings waiting room.

The abstract painting shown here is one of the works of Mr. Alan Persson of the Head Wrightson Stampings Planning Department. A Scandinavian by birth, Mr. Persson took up painting only four years ago. He has already held a one-man exhibition at the Westgate Gallery, Newcastle in February 1964, and several newspapers commented on his ability. He had a further exhibition at the Gray's Art Gallery, West Hartlepool, during May and June 1965, and an exhibition in Billingham during September and October of this year.

He states that abstract painting is viewed with suspicion by many of his colleagues and fellows, but this is because they attempt to recognise in the painting a known or familiar subject, whereas one should look at an abstract painting and attempt to derive pleasure from its form, geometry or colours without necessarily being able to explain why. Needless to say, his work has sparked off some interesting discussions at Head Wrightson Stampings Limited.

Whether or not you like abstract painting, it must be pointed out that this photograph in black and white cannot do justice to the original, for without colour the whole impression of the painting is lost.

## Problem

W R I G H T  
A H E A D  
—  
A G A I N

Substitute numbers 0 to 9 for the letters, and solve the subtraction.

Submitted by :- Bill Richardson, H.W.I.S.W.E.L.—D.O.

Solution on page 16.



Assembly of R. & D. staff for departure of Dr. Young.

## PRESENTATION TO DR. YOUNG

After nearly ten years in R. & D., Dr. P. A. Young left on 20th August to take up the appointment of Director of the Australian Mineral Development Laboratories in Adelaide.

He started the Division from nothing and due to his energy, vision and knowledge he built it up to what it is today. His guiding hand and wisdom in such a wide field of technical matters will be sorely missed.

Before leaving he was presented with a silver cigarette box and lighter from the members of R. & D., at an informal ceremony, where these photographs were taken. He and his wife left Tilbury for Australia on the S.S. ORSOVA on the 22nd August, and took with them our best wishes for their future.

## THE HEAD WRIGHTSON MACHINE COMPANY LTD.

### SILVER WEDDING OF MR. F. A. BATTY

Mr. W. H. Mather, Managing Director, presented on behalf of the staff benevolent fund, a coffee percolator to Mr. F. A. Batty, on the occasion of his silver wedding.

## HEAD WRIGHTSON PROCESSES LIMITED,—LONDON.

### RETIREMENT OF MISS GLADYS HARRIS

Miss Gladys Harris, Secretary and Personnel Officer, retired in June after twenty-one years service with Head Wrightson Processes Ltd., London. Mr. J. H. Turner, General Manager, presented Miss Harris with a set of cut glass, and on behalf of Staff and Management wished her many happy years of retirement.

### RETIREMENT OF MR. S. J. DAVIES

Mr. S. J. Davies after twenty-one years service with the Company as Secretary to Management, retired on 19th November, 1965.

## MORE PUZZLERS (Continued)

2. Trick Question.  
What is the longest word in the English Language?
3. Discounting proper nouns, how many words can you find that contain half the letters of the alphabet?
4. If the above words contain half the alphabet, can you find one containing fourteen different letters?

### DUKE OF EDINBURGH AWARD SCHEME

This scheme, which has been running successfully for some time, is open to all boys between the ages of 16 and 18, subject to certain conditions.

Anyone interested should contact Mr. A. Rose on extension 228, who will be pleased to supply them with any information they require.

## What's this?

The following addresses appeared on various envelopes, all of which eventually found their way to Head Wrightson & Company at Thornaby.

Head Wrightson Stainless Steel Ltd.,  
Teesdale Ironworks,  
Thornaby.

Head Wrightson  
Teesdale on Tees  
Co. Yorks.

Hed Wright & Son,  
Teesdale Ironworks,  
Thornaby.

Head Wrightson Experimental Dept.

The Forge,  
Stockton

Head Wrightson Consett Iron & Steel

T. Wright & Sons

Head Wrightson Steam Foundry  
Teesdale Ironworks,  
Thornaby-on-Tees.

Head Wrightson  
Eagles Cliff  
Co. Durham.

G. P. O. Foundries,  
Yarn Road,  
Stockton.

The Personnel Master.

Head Wrightson Iron Foundry,  
Tees Valley,  
Co. Durham.

Answer to Puzzle on page 15.

107429

52856

54573

### THINK BIG

1. India — This is the Taj Mahal near Agra. It was built by the Emperor, Shah Jehan (1629-50) and cost £2,000,000.
2. Germany. The Cathedral spire at Ulm is 532 ft. high.
3. The Chinese. This was built in 214 B.C. and is over a thousand miles long.
4. The largest palace in the world is the Vatican, Rome.
5. The longest ship canal in the world connects the Baltic Sea and the White Sea, in N.W. Russia and is 560 miles long.
6. America claims this distinction for the Yellowstone National Park, N.W. Wyoming, with an area of 3,350 sq. miles.
7. The Sahara, North Africa. Estimated area is 3,000,000 sq. miles.
8. The largest island in the world is Greenland (827,300 sq. miles).
9. The British Museum. (4,000,000 volumes).
10. (a) Moscow, Russia. The "Tsar Kolokol" weighs 180 tons, but has never been rung.  
(b) London. The "Great Paul" in Saint Paul's Cathedral weighs 16½ tons.
11. La Paz, Bolivia. 11,800 ft. above sea level.
12. Venezuela. (Between 5,000 and 6,000 ft.).

### EVERYBODY KNOWS — OR DO THEY ?

1. The Pyramids, at Gizeh, in Egypt. The Great Pyramid is 450 feet high.
2. The Hanging Gardens of Babylon.
3. The Tomb of Mausolus, King of Caria, in Asia Minor, erected by his Queen, in 350 B.C.
4. The Colossus of Rhodes (Island off S.W. Coast of Asia Minor) erected 280 B.C., destroyed by earthquake 220 B.C.
5. The Temple of Diana, at Ephesus, near Smyrna, in Asia Minor.
6. The Statue of Jupiter, at Olympia, in Greece.
7. The Pharos Lighthouse, Alexandria, built by Ptolemy I, 330 B.C.

### MORE PUZZLERS

1. (a) alligate (b) corrugate (c) castigate (d) objurgate (e) runagate (f) litigate (g) surrogate (h) fumigate (i) instigate (j) lichgate (k) promulgate (l) frigate (m) agate (n) Reigate.
2. Trick Question.  
'Smiles' — there is a mile between the first and last letter.
3. Amphigenously, Pneumogastric, Subordinately.
4. Ambidextrously.





De Olde

Beehive Inn

Residential  
Catering