

The first 100 years
William Briggs & Sons Ltd
(1865- 1965)

Contents

5	<u>William Briggs</u>
7	<u>The beginning</u>
9	<u>Establishing Arbroath</u>
15	<u>The development in marine work</u>
25	<u>Between the Wars</u>
37	<u>Present day expansion</u>
53	<u>The Company today</u>

The first 100 years
William Briggs & Sons Ltd
(1865- 1965)



The Founder of the Company: William Briggs 1839-1919

William Briggs

In Dundee, more strikingly perhaps than anywhere else, may have seen evidence of the flooding tide of change this is bringing new vitality and new purpose into much of the life of Scotland. Central redevelopment, high-flat housing, college and hospital expansion, road bridge achievement, industrial enterprise-the picture might be said to be symbolic in many ways of the country as a whole. In the forefront of the city's industry the firm of William Briggs and Sons Limited shares in this forward look to the bright promise of the future.

Perhaps a hundred years ago it was much the same. One can imagine without great difficulty how William Briggs himself, when he turned to Arbroath for the founding of the firm, looked with a similar confidence to the rich promise of the years that lay ahead.

At that time William Briggs was just turning twenty-six. He had been born in East Retford, on the River Idle in Nottinghamshire, on the 25th March 1839. Educated at the famous King Edward V1 Grammar School in Retford, he was perhaps, as eldest son, destined to join his father-a stage coach proprietor on the York to London run – in the family business. But that was not his choice. The first rail of the Stockton to Darlington Railway had been laid in 1822; in 1830 the Liverpool to Manchester line had been opened; up and down the country the network of the railway had been stretching and sprawling outwards. It was the age of achievement, the age of great engineers like the Stephenson's and Brunel, of famous contractors like Brassey and Peto, of the vast armies of navvies tunnelling, shovelling and blasting towards a new prosperity. The days of coaching were numbered. William Briggs, aged fifteen, set his face against the family business and struck out on his own, going to Chesterfield, 23 miles to the west in Derbyshire, to join a telegraph company.

Like the railways, and like the first steamships, which were bringing to an end the great days of sail, the telegraph was pointing to a new world of far and beckoning horizons. Demands for the service had been growing swiftly and impressively, it must have been a temptation to the young William Briggs to commit his future to so promising an avenue in the field of communications. In 1858 moreover, while still with the same Chesterfield Company, he was transferred to Edinburgh and so set foot in Scotland for the first time. But again he had other ideas, perhaps because it had become policy for the telegraph services throughout the country to be brought under Government control. In 1860, at the age of twenty-one, he moved through to Glasgow.

This was more than merely a change of environment; it was to be the introduction to his life time's work, the foundations on which all his later achievements were to rest.

William Briggs

Yet what is perhaps most remarkable about this Glasgow period is that it lasted barely five years, for into it William Briggs seems to have crowded so much that it must have been full to overflowing.

His work was with the British Asphalte Company, a firm which was obviously progressive, acquiring new premises in Port Dundas in 1860 in place of its Buchanan Street office, and by 1865, enjoying an expanded directory description which ran: "Asphalte manufacturers, distillers of tar and mineral oils, refiners of petroleum, naphtha and turpentine substitute; grease manufacturers. " Nor is there reason to doubt that William Briggs made his contribution to this progress, for he became assistant manager and was later to mention, with no little emphasis, the wide experience he had gained supplying materials for regular Admiralty orders on the Clyde.

In such spare time as he had, he took classes in chemistry at the Andersonian University, the institution which had been founded in 1796 and which in due course was to become in turn the Royal College of Science and Technology and the University of Strathclyde. Some of the note books which he used at the time are still in existence, written in a neat copperplate hand and frequently emphasising a keen and growing interest in the subject of tar distillation. In addition, it is obvious that throughout this time he was both saving hard and planning hard. No doubt he was looking forward to being able to start in business on his own account and directed his energies accordingly.

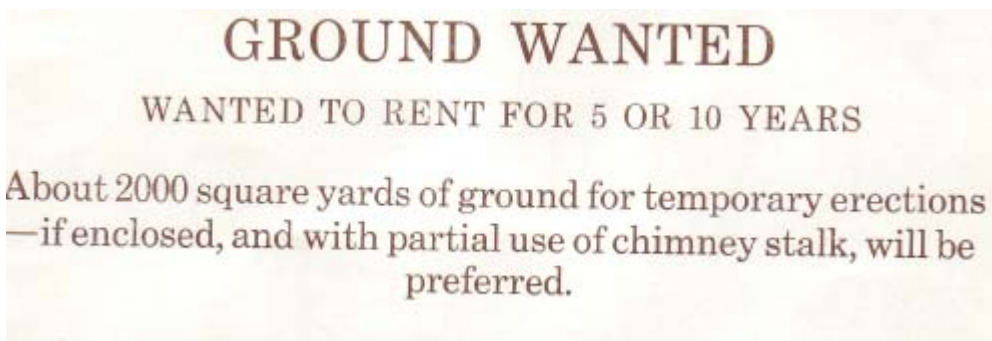
By the end of 1864 the time was ripe. Enough capital had been accumulated, and in addition he had the assurance of further generous financial backing by his future brother-in-law, Archibald Smith. The vital step of launching out on his own in tar distillation had become a practical possibility, and so William Briggs looked east, to an altogether new locality, shrewdly chosen for his venture-Arbroath.

The beginning

The beginning

At the beginning of the year that was to see the assassination of Abraham Lincoln and Edward Whymer's ascent of the Matterhorn, Arbroath was a thriving costal town with a population graph that was still climbing; its staple industries of canvas and leather had yet to start declining with the disappearance of the sailing-ship and horse. Furthermore, like all sizeable towns of the day, it had a good-going gas works and a gas company always ready to seize opportunity to dispose easily of troublesome waste products. But what was of much greater importance still was its ideal strategic position: the rival firms then operating were all located elsewhere, in Aberdeen, Falkirk, Leith and Glasgow. In Forfarshire there would be a clear field.

So it was that in Arbroath Guide for 26th January 1865, the following advertisement appeared:



And not long afterwards, under the heading of "New Work," the brief newspaper report: We understand that a piece of ground forming part of the old Saltwork property has this week been feu * for a work to manufacture asphalte, rectified naphtha, tar oils, pitch, sulphate of ammonia, etc. The proprietor is Mr Wm. Briggs, late with the British Asphalte Company, Glasgow. We understand that Mr Briggs has contracted with the Gas Company for their refuse, which was formerly sold to Dundee."

The new works began operating in March 1865. The wages book containing the details of the first week shows a total of £1 5s 0d. William Briggs had two employees.


* In Scotland, tenure of Land in return for fixed annual payment.

The beginning

In the early days of the Company, "test and experiment" occupied a large proportion of William Briggs time, as the following extracts from a record book dated 7th July 1880 demonstrates.

Tar as fuel - Hole $\frac{1}{2}$ " diam & water 80-100
drops per minute mixed - (the water decomposed
& the Hydrogen burst) - 1 cent Tar yields $\frac{1}{2}$ -2 (carb)

Testing

Place a piece  on bit of
slate or pottery in bowl of
water with thermometer near bottom of same - for
5 minutes - 'Medium soft' softens and
turns to @ 60°C & melts @ 100°C. -

Revised (Spure) -

'Lake'	softens @	180-192°F
'Lake'		190-237°F
x 'Spure' (or revised)	S.G. @ 77°F	1.39 to 1.43
do softens		189-200°F

found chemical industry
at 263. March 1893

Establishing in Arbroath

Establishing in Arbroath

Looking back now on the earliest days of the company, it is impossible not to be struck by the evidence of the courageous struggle for existence that took place in the face of bitter adversity. Scarcely had production started before a petition signed by twenty-one "residents" was placed before Arbroath Town Council protesting against the erection of the new asphalt works and the nuisance it would undoubtedly cause. "The complaint", says the report in the Arbroath Guide "was transmitted to Mr Briggs".

No sooner had this hostile reception been overcome than a series of fires occurred in the works. Probably these were not serious in themselves; but they happened to break out just when the market had taken a severe tumble and when one of the company's most important debtors had gone into liquidation. In 1866 the Company itself went bankrupt.

It is obvious; however, that William Briggs had not the slightest intention of letting setbacks such as these deflect him from his purpose. In the early months he had set about the steady building up of his labour force: the two employees had become four in many weeks; soon the total had grown to ten. His advertising, too, reflects this progress, proclaiming a sure confidence. Insertions in the Dundee and Perth papers offer the undertaking of asphalt work anywhere in the north-east Scotland, with apparatus and material constantly available in Dundee, where premises had been secured in Foundry Lane.

TO ARCHITECTS, BUILDERS,
MANUFACTURERS, &c.
ASPHALTING.

WILLIAM BRIGGS, late with the British
Asphalte Co., Glasgow, begs to intimate that he is now
prepared to execute Asphalte Work throughout the North East
of Scotland. Asphalte Floors, being thoroughly impervious to
DAMP and VERMIN, are most efficient for Flax Warehouses,
Granaries, Barns, Stables, Sunk Cellars, &c. Asphalte is also
now most extensively spread under Wooden Floors, and on the
Foundation Walls of Dwelling-Houses, preventing the rise of
Damp, and thus greatly enhancing the value and comfort of the
Property.

Most Satisfactory References for Work done in the District.
Apparatus and Material constantly in Dundee.

ASPHALTE WORKS, ARBROATH.

Establishing in Arbroath

Asphalt floors, the wording stresses, are thoroughly impervious to damp and vermin and are “most efficient for flax warehouses, granaries, barns, stables, sunk cellars, etc”; within a few months the list had been significantly extended to include “iron bridges, flat roofs, water tanks and curling ponds.” On paper at least the company was on the march.

And as to emphasise his own supreme faith in the future, William Briggs chose 1866 as his wedding year. On the 13th September he married Jane Smith, aged twenty-five, and so two years younger than himself, in her house at 379 Vincent Street Glasgow. The marriage certificate shows his own residence as being in West Abbey Street, Arbroath.

It is not certain whether the firm’s bankruptcy occurred before or after William Briggs’ marriage, but there is no doubt whatever as to the vigour and determination with which he set about putting matters to rights. A meeting of creditors was called and at this a payment of 10s in the £ proposed and accepted by all, except William Briggs himself. With unabated vigour he tackled the formidable task of making up the balance, and six years later, the immense satisfaction, he was able to write to his creditors offering to reimburse them in full.

For clear pictures of the old Arbroath works, one may turn to two descriptions of the early days. The official inspection report of Thomas Anderson MD, Professor of Chemistry in the University of Glasgow and Chemist to the Highland and Agricultural Society, dated 4th December 1868. The report is highly complimentary of the methods employed in the production of naphtha, pitch oil, asphalt and sulphate of ammonia. There are four stills the professor reported, “A tar, a pitch and ammonia still and a small still heated by steam, which, however, is rarely used”. “As regards the situation of the works, I consider it to be well adapted to the purpose. There are no dwelling-houses nearer than 300-400 yards to the west and north, and towards the east half a mile. These are distances at which I think it impossible that any injurious effects or even annoyance from smell can be experiencedAltogether, I may say that Mr Briggs’ is a well conducted work, and that the locality in which it is placed is well suited for such an establishment”.

CHEMICAL and ASPHALTE WORKS,

ARBROATH, Dec. 12th, 1872.

DEAR SIR,

It was my painful duty six years ago to inform you that through heavy losses (by a sudden fall in the market, several fires at my works, and the sequestration of a firm indebted to me at a distance), I felt compelled to call a meeting of my Creditors. At that meeting you are aware a statement was submitted, and, on the suggestion of a Creditor, 10s. per £ was accepted, payable within twelve months.

I have the utmost pleasure in intimating to you that I now find myself able to pay the balance, making 20s. in the £, and therefore beg to enclose Cheque for £ : : , which be good enough to acknowledge receipt of, and oblige,

Yours respectfully,

WM. BRIGGS.

Establishing in Arbroath

Rather less formal though a good deal more picturesque are the recollections of Mrs E. Allan, the days of which she speaks belonging, of course, to a slightly later date than that of Dr Anderson's tour of inspection.

"Long ago as children," she recalls, "when we got tired of playing games, we'd go down to the rocks at "Saltpan" by way of the "deils close". Over a high wall on one side of the close was Briggs's asphalt works and we were told never to go near there or the deil would get us and put us in a big pot. But, of course, we had to go and climb on each other's backs to see over the wall into the deli's kitchen, where an oldish man with a brown apron used to work.

"One day we were standing at the gate and "Auld Nick", as we called him, came shooing us away. As I turned quickly to run, I spilt my can of buckies; I stood there too scared to pick them up yet sweer to leave them. Then the old man came and picked up a handful and held them out to me, and as he didn't look too bad, I went forward and held out my pail. "What is't ye want here?" he asked and one of my pals cried out "She wants to see into yer muckle pot." So the old man turned and walked away and we all followed him over to the pot. He lifted me up and let me peep in; it was half full of tar. I looked at him and said: "Yer tar is spoiling our buckies. "My, my," he said and scratched his head. "Now awa' ye go and dinna come in here or ye'll get hurt; mind now. " But many a peep we had into the yard after that.

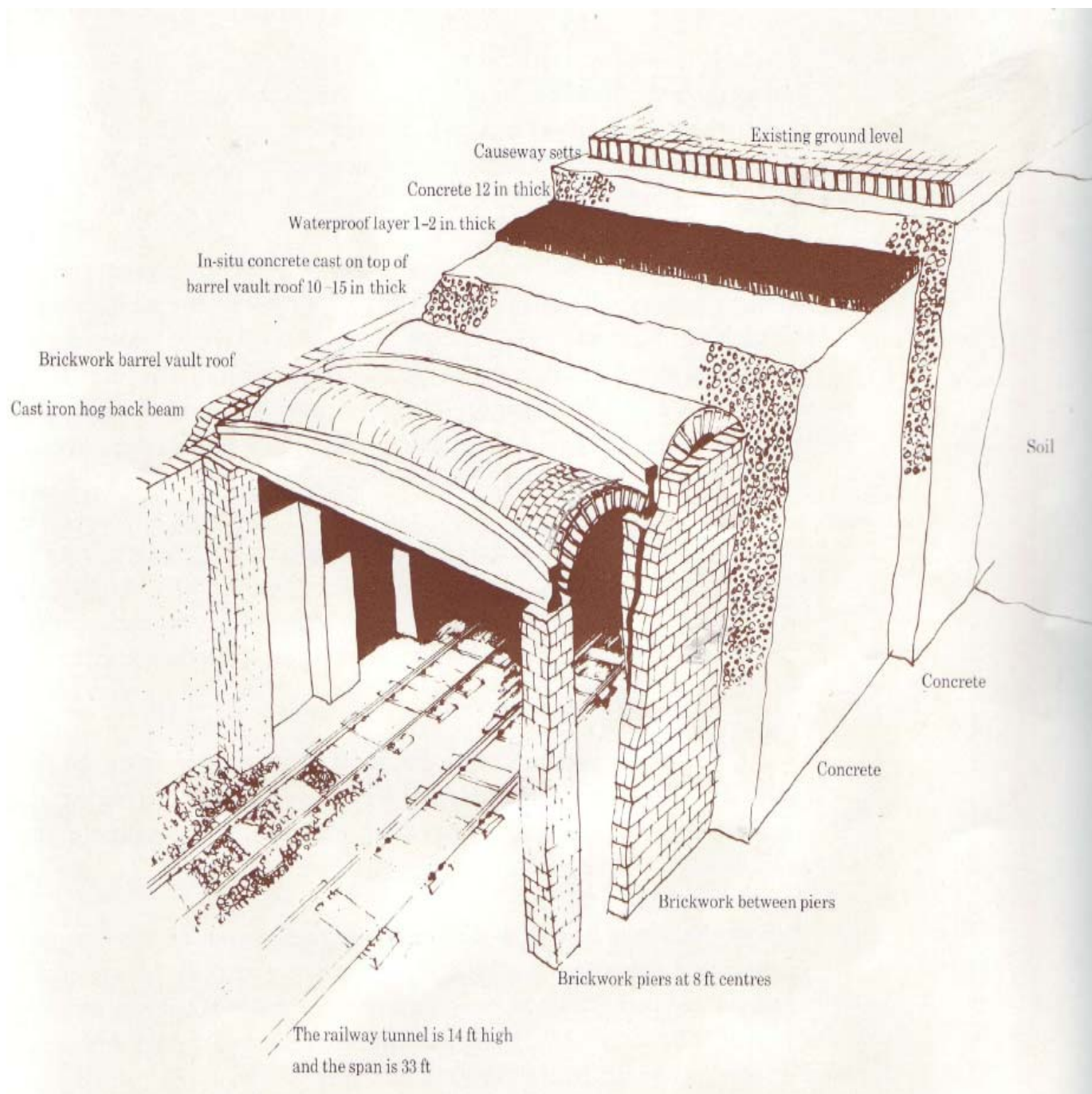
"Well, that's a long time ago, but I never smell tar but what it reminds me of Briggs' and "Auld Nick" and his deil's kitchen.

Gradually the firm's activities grew in scope and importance. Encouraged, perhaps, by a "highly commended" award at one of Dundee agricultural shows, an increasing amount of asphalt flooring came to be laid among the prosperous farms of Perthshire and Forfarshire. By the beginning of 1870 an advertisement for this type of work could list more than a score of steadings that had been successfully floored.

Asphalting, however, was not restricted to farms. One contract of an altogether different kind called for application to the roof of the North British Railway tunnel taking the main line under Dundee's Dock Street. This was in 1869 -70 and it is interesting to note that recently, when sections of the tunnel roof were being excavated the construction of the Tay road bridge, pieces of original asphalt were tested and found to be in first-class condition.

Much of the asphalt work of the early days was carried out on road and pavements as well as on the foundations and basements of buildings. One outcome of this was that William Briggs was appointed agent for the firm that was later to become the world-famous Limmer and Trinidad Lake Asphalt Company.

Establishing in Arbroath



Tunnel carrying main railway line under Dock Street, Dundee thought to have been constructed circa 1870

Establishing in Arbroath

An advertising brochure dated May 1876- delightfully illustrated to show a Pickwickian crowd enjoying the fun of a skating rink laid with polished limmer rock asphalt-describes him as “Sole Agent and Consignee for the East of Scotland”. This, however, was clearly just a beginning, as within a year his name and agency had made their appearance in the Post Office directory for Glasgow.

In the meantime the company's rivals were viewing this surge and spread of business with anything but quiet complacency. In 1883 one of them-Dobbie, of Leith-took determined action: he built the Dowrie works, south of Elliott Junction Station. This was so close to Arbroath itself that there was not the least doubt that the intention was to establish a bridgehead and capture this whole East Coast territory outright. But it was Dobbie himself that was routed. During the ensuing years he was so completely out-traded that in the end he was obliged to cut his losses, sell out to his opponent and return discomfited to his headquarters in Leith.

The final phase of this battle was a somewhat acrimonious law-suit, holding up entry for William Briggs for more than four impatient months. Purchase date was 1st July 1892, but it was not until 14th November that the new owner was able to write “After much vexatious litigation the North British Chemical Works –Dowrie Siding –Elliott-have been formally handed over to me today”.

But if progress to final purchase had been tiresome, the strategy that lay behind the move itself was a shrewd as it was bold. The cost of the new works was £3,500; it was not to be long before results would show that the investment had, in fact, been a well-timed master-stroke.

The plant which formed the small original works in Arbroath was destined to be dismantled six years after the Dowrie purchase, but in other directions the accent was falling ever more strongly on expansion. There were two works in operation in Fife – at Ladybank and, for a short time, at Kirkcadly-while for contracts further north there was a depot in Aberdeen. Head office had been established at 87 High Street, Dundee.

In addition to these indications of growing strength, two of William Briggs' sons had joined their father in the business –William A. Briggs in 1887 and James A. Briggs in 1889. The opportunities were at hand for riding the wave of prosperity that was building up as the turn of the century approached.

The development in marine work

The development in marine work

Right from the early Glasgow days William Briggs had taken a profound interest in ships. Admiralty work in the Clyde yards had been very much his concern and it is hardly surprising that, once established at Arbroath, he should have started to turn this experience to good and promising account.

The Marine Contracting Department derived from small beginnings. Yet so favourably was its origin timed that growth was almost incredibly swift. The fact that iron and steel had been displacing wood in shipbuilding to a steady increasing extent meant that everywhere there was an urgent demand for anti-corrosive materials. Bituminous compositions of various kinds were found to provide ideal answers to almost all of these needs and soon success was following success with what must have been quite bewildering rapidity. Men were trained in both manufacture and application, and it was not long before squads of "black cementers", as they came so to be called, were working far a field on a multitude of important ship contracts.

By the time of the Dowrie Works purchase Tenax and Ferriod were two names already becoming familiar in shipyards quite literally all over the world. Tenax bituminous solution won recognition as an economical substitute for red lead or paint in protecting holds, bunkers, funnels and other particularly vulnerable surfaces; in place of outdated wooden decks, then new Tenax deck composition, applied hot to plating, had the merits of lightness, cheapness and durability; also developed to meet a growing demand patent Tenax cement and marine glue. In addition to these, the bituminous enamel Ferriod made its mark as a durable protective for ballast tanks, bilges, tank tops, chain lockers and many other ships' corners exposed to severe corrosive conditions.

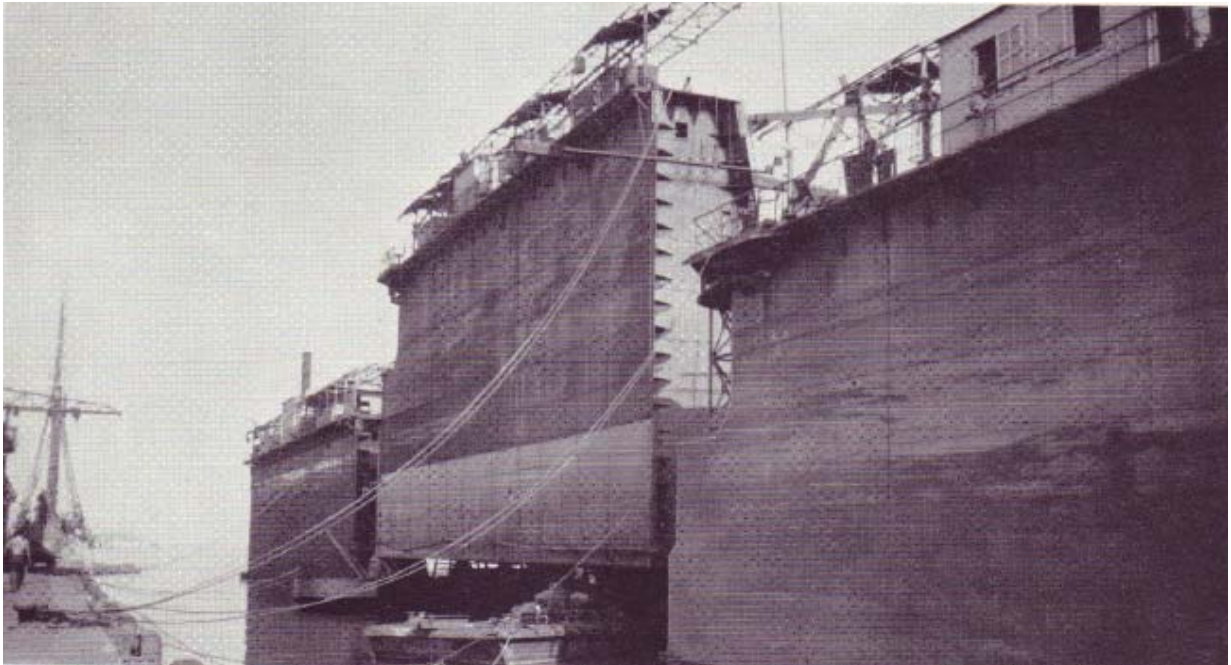
Looking back not to William Briggs' correspondence of seventy-five years ago it is almost humorous to note the increasing frequency with which the names of famous company's occur: Harland and Wolff, Denny of Dumbarton, Fairfield, Shaw Savill and Albion, the Cork Shipping Company, the Bibby Line and many more besides. At this time, too, we find William Briggs writing to the Admiralty asking for the company's name to be added to the list for bituminous cement- a request that was duly granted. To ship-builders in Stettin goes a quotation for marine cement, to Hongkong the specification for Ferriod. A Liverpool correspondent is told: "The new Bucknall Steam Navigation Company have used Ferriod on tank tops in engine rooms, engine seats, tunnels etc. I have also done similar work in Hamburg for Messrs Blohm & Voss Limited (the largest shipyard in Germany.)" "Yet another in Trieste is informed: "Messrs Laird Bros, of Birkenhead, contemplate using it on the bunkers of the largest steam yacht in the world which they are building for Vanderbilt, the American millionaire."



*The Barque "Havilah" Built in 1867 by Brown & Simpson of Dundee
One of the first sailing ships to be coated with Briggs bituminous solutions*



*"Dunnottar Castle" built by Harland & Wolff Ltd,
Belfast, for Union Castle Mail Steamship Co Ltd.*



Floating Dock at Soerabaya Java

In April 1839, Tenax was being used “in two of our Royal dockyards”- indication of a further important growth-point in this type of work. Indeed it was not to be long before floating docks throughout Europe, North and South America were being treated with Briggs’s bituminous coatings almost as a matter of routine. From Danzig to Odessa, from IJmuiden and Fiume to Galveston and Rio de Janeiro, materials and methods became well known and trusted.

Nearer home, yet of no less significance, was the work carried out to the two railway bridges over the Tay and the Forth.

Particularly vulnerable to the fiercely corrosive effects of moist east winds and brackish spray, the Tay Bridge had presented a continuous maintenance problem to the engineers ever since its completion in 1887.



Tay Railway Bridge: coated with Briggs bituminous solution

Various anti- corrosive paints and compositions had been tried, but without marked success, and when, in the spring of 1898, a test area of underside steel plating was treated with Viaduct bituminous solution, opportunity was there for the taking. After seven years the coating remained unaffected, as glossy, as tough and as sound as when it had been applied. The result of this was that the bridge was coated with Brigg's solution from low water mark up to roadway level throughout its entire length of over two miles.



Forth Railway Bridge

Not surprisingly, perhaps, similar tests were decided on early in 1905 for the Forth Bridge. An exposed portion was treated with Briggs' solution and, as the ensuing years passed, inspected for signs of corrosion. Results were completely satisfactory, as satisfactory as they had been in the earlier work.

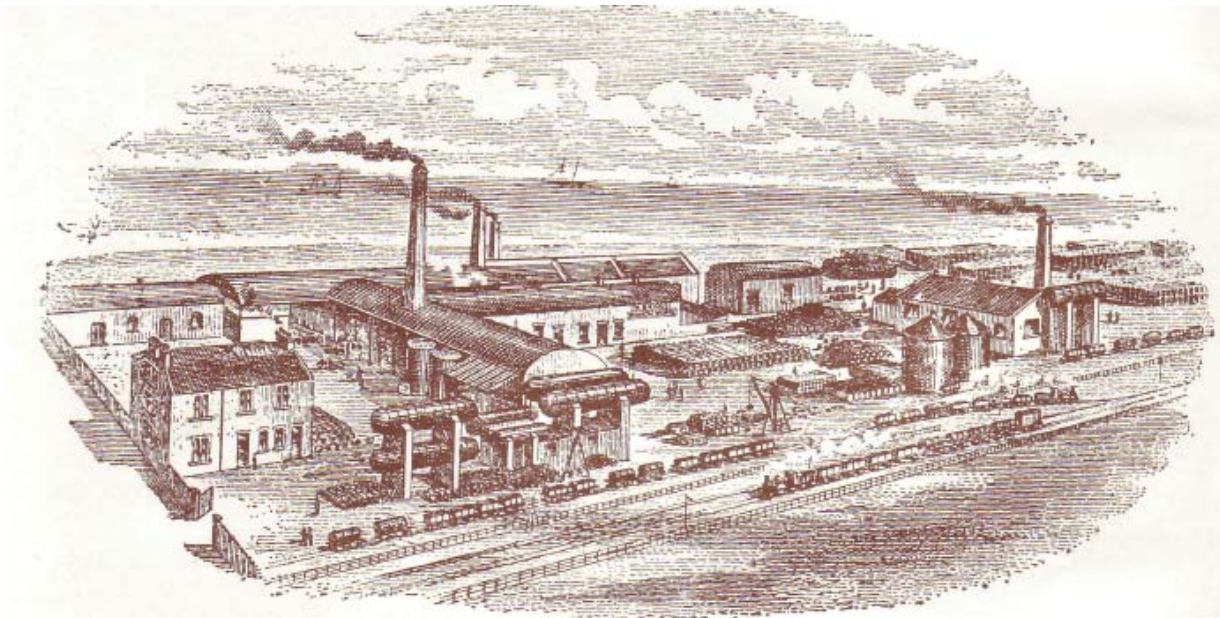
Another advance had been achieved in what was to become an impressive succession of bridge contracts both at home and abroad.

The development in marine work

Throughout this time importance of the old works at Arbroath had been declining steadily. Finally, in 1898, it was decided that they should be given up for good and be dismantled.

Mr George Law, for many years as an engineer with the company, recalls how he and his father took part in the demolition, clearing the site known as “the Braeheads”, where the high chimney stood and the store-tanks raw materials were accommodated. Most of the old equipment was broken up for sale as scrap, the little what was worth saving being transported either to Dowrie or to Ladybank.

The original Dowrie Works, Elliott Junction, near Arbroath, purchased in 1892



From this time forward attention turned mainly to Dowrie, where new equipment for damp-course manufacturers was being installed. In this important innovation William A. Briggs played a prominent part. He was responsible for negotiating with a Berlin firm of engineers to design plant for the manufacture of Hessian-based bitumen damp-course and Hessian-based sheeting for roofing. Along with James A. Briggs he was responsible also for seeing that the machinery, shipped over from Germany, was successfully installed. Yet in the early stages, it seems, nothing went right.

The steelwork for the tower structure was fabricated on the site, while the bitumen tank was also made and installed by an East Scotland firm. The imported parts however were in the charge of a German engineer, barely twenty years old, who had no previous knowledge of what was involved.

The development in marine work

Not surprisingly there was trouble as soon as the trials started: the tower rollers became badly overheated and as the German manufacturers had failed to make proper provision for this, the machine was able to run for no more than a brief spell at a time and then only after liberal application of french chalk. "After many unsuccessful adjustments", recalls Mr Law, 'Mr James Briggs decided to scrap that part of installation and starts afresh. He and my father believed that water cooling was the answer, and with the help of Mr George Lee, of the Arbroath High School Engineering Department, completely new parts were designed. The castings and machinery were made in Arbroath, and when the new installation was finally ready, it functioned satisfactorily and continued to do so for a long time afterwards."



The original plant at Dowrie Works manufacturing bituminous roofing and damp courses

From the first, the waterproofing materials produced on this plant contributed notably to the firm's export business. Normal procedure was for the plant squad to manufacture sizeable stocks, then from time to time to go abroad and lay the sheeting as required on the buildings of the various contracts. One drawback to this system appears to have been that too many of the men had married women of the county they were visiting, and as a result failed to return home.

Another line in which William Briggs took a remarkably keen interest in the early years' was concrete. He made a close study of its preparation and uses, and in 1891 published a small treatise entitled "High Class Concrete Work for Paving, Flooring, Arching, etc." The trade mark Syenitic was duly registered and is shown on the front of the booklet, while the telegraphic address-"Cement, Dundee"-is further indication that this was planned to be a serious effort to extend the firm's activities. Described as "an improved granolithic", Syenitic concrete was intended for many uses- in gardens and stables, in mills and factories, on pavements and railway platforms and school playgrounds- and much of William Briggs' descriptive matter was well before its time; some of his instructions, indeed, were to be closely followed many years later when certain contracts to which they were applicable were being handled by the firm.

Sulphate of ammonia, made from ammoniacal tar liquor, was yet another product which had attracted the attention of William Briggs. According to the old inspection report by Dr Anderson, it was being made at the Arbroath works in 1868, while after the closure the production was carried on both at

The development in marine work

Dowrie and at Landybank. The Dowrie plant had to be dismantled and completely reconditioned in 1904, but despite this break, sulphate constituted between eight and ten per cent of the total sales of the firm between 1900 and 1914.

Apart altogether from production side of the business, the turn of the century was a time of outstanding importance. In the first place the financial structure of the firm was basically altered when, in 1899, it was decided that a limited company should be formed. Registration was duly affected in Edinburgh on the 21st November and four months later, at 11am on Tuesday, 13th March 1900, the first general meeting of William Briggs and Sons Limited was formally held at 13 Panmure Street, Dundee. "There were present William Briggs, William Archibald Briggs, and James Alexander Briggs. William Briggs occupied the Chair." The capital of the company was £15,000 divided into £5,000 Ordinary shares of £1.00 each and 10,000 Preference shares of £1 each.

It was also in the milestone year 1900 that Arthur R. March, father of the present Chairman of the Board, Mr G.A. March, was appointed agent in London-the firm's first representative. The letter making this appointment was written by James A. Briggs and signed by William Briggs himself.



James A. Briggs



A.S. Briggs

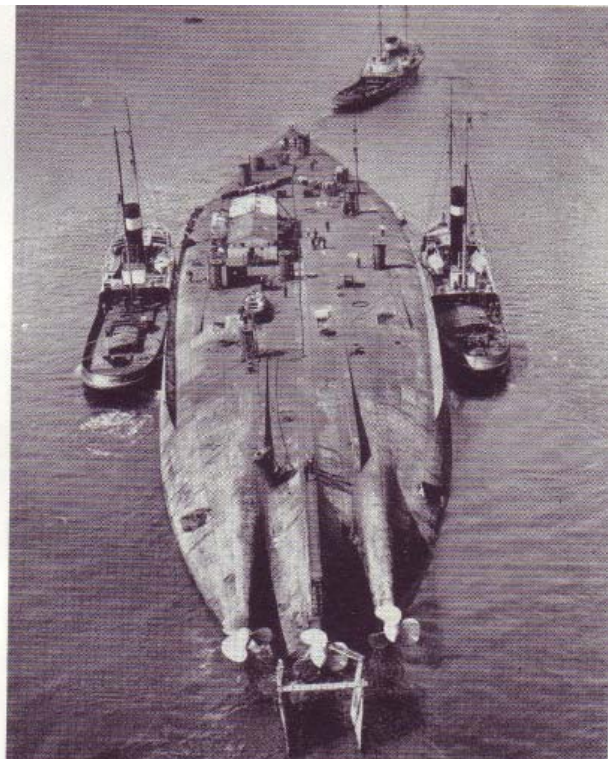
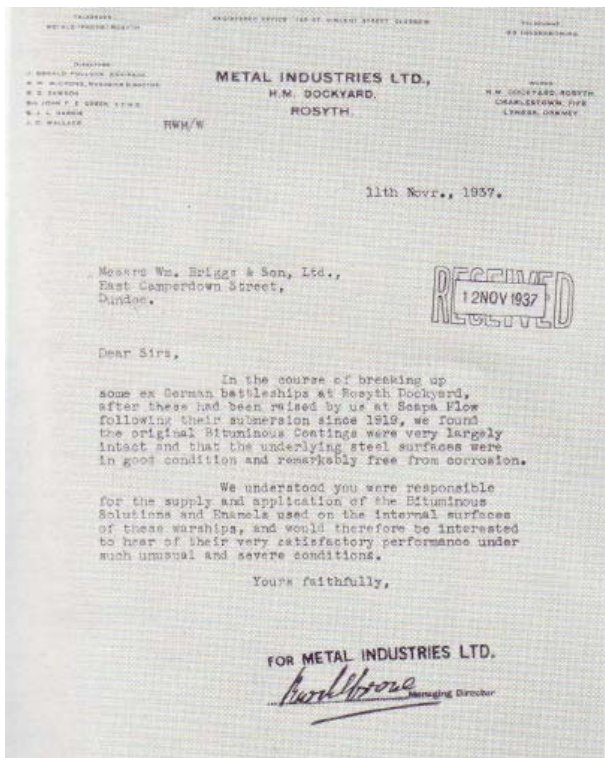
The first London office was at 11 Leadenhall Street, business carried on from there until 1911, when a move was made to 6 Lloyds Avenue-destined to be gutted by fire bombs in the Second World War. In the early days bitumen solutions and marine glue made you the bulk of the London sales, directed mainly to the shipping industry, and Mr March has vivid memories of the way in which orders and deliveries were dealt with even as late as 1919 when he joined the Company. Having written out the necessary labels and consignment notes, he had his father would go down the firm's minute, cramped railway arch at Stepney and there put on gloves and roll the barrels into position ready for dispatch. The goods were then delivered by horse and cart to the docks or railway depots by Pitman, a greengrocer from Stepney.

Also a newcomer soon after the beginning of the century was William Briggs' youngest son, Archibald S. Briggs, later to play an outstanding role in the direction of the Company's affairs. As early as 1908, when an extraordinary general meeting was called to alter the Articles of Association and make the firm into a Private Company, it was he who signed the notice as secretary.

The development in marine work

William A. Briggs on the other hand was much in Germany. He had established a small depot and works in Hanover and in the minutes of several of the early Company meetings his apologies for absence because of business commitments in Hamburg. Just as at home orders were coming flooding in from the shipyards for dozens of new vessels, from torpedo boats to battleships and great liners like the Orama and Aquitania, so too in Germany there was a ceaseless demand for naval and merchant ship work. As the war clouds gathered the pressure increased with a bitter intensity and by 1914 more than half of the whole German navy was protected by Briggs' marine compositions.

In August the storm broke. William A. Briggs was on his way home to Scotland, in his possession detailed information of inestimable value concerning the Kaiser's Grand Fleet.



(Right) The Bayern about to pass under the Forth Bridge en route to the breaker's yard

Between the Wars

Between the Wars

Shortly after the end of the First World War, on 9th May 1919, the founder of the firm died.

William Briggs had retired as managing director at the beginning of 1910; yes as life-chairman of the Board he had retained with undiminished enthusiasm his intimate association with the Company. From his quiet country house, "Torradarach," in Pitlochry, he had taken note of the changes of many kinds- in production methods, in market expansion, in financial structure, in management –changes which must have called for his bold decisions, especially as for much of the pre-war period trading results had been disappointing and capital for new projects short. Perhaps, as the Company strove to weather the storm of war, it seemed to him as though there was not really so very much difference from the crushing problems and daunting uncertainties of the distant early days.

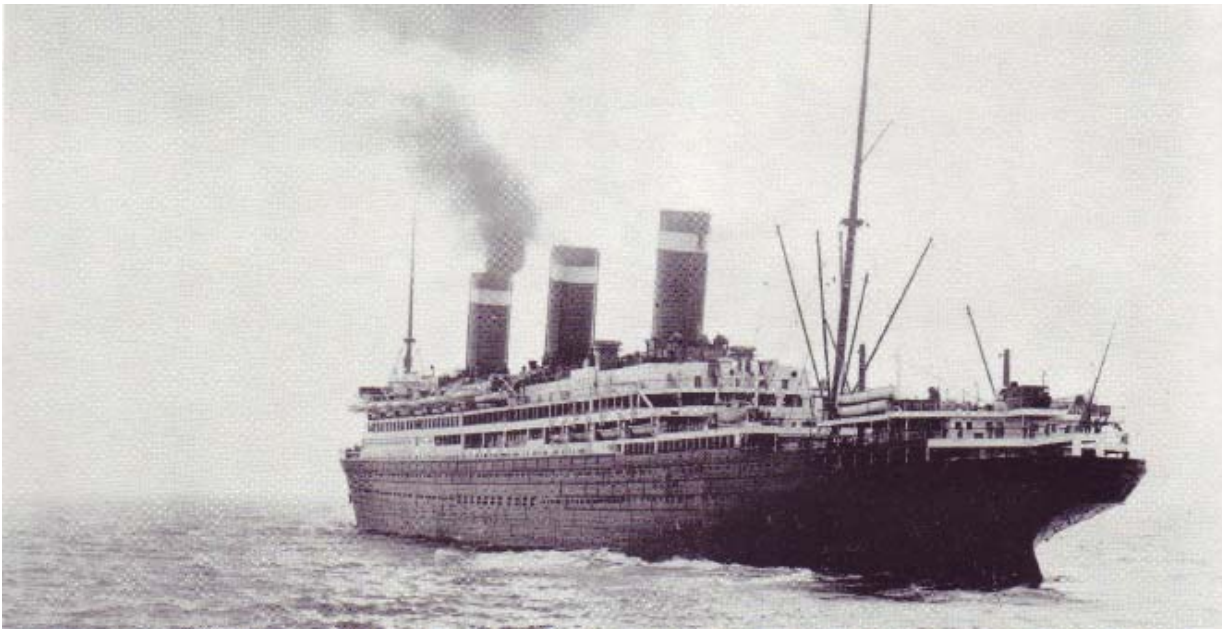
Nevertheless the Company had been growing steadily in strength. Capital had been increased twice to £20,000 in 1900 and to £26,000 in 1916 ; a move had been made just before the war from Panmure Street to new and more commodious offices at Meadow Place Buildings; plant had been maintained and even added to, and although William A. Briggs had resigned in 1916, Archibald S. Briggs- as director, then, remarkably soon afterwards, as assistant managing director- was showing that promise which was to be so richly borne out all through his subsequent long and distinguished service with the Company.

Throughout the difficult war years of the First World War the minutes of the annual general meeting show a pattern that changes little. Costs of labour and raw materials rise steadily; deliveries, inevitably, are slow and uncertain; Continental markets shrink and disappear.

Business in tar products is severely affected, though there is still much work for the shipyards and, increasingly, in bitumen roofing for firms engaged on War Department contracts. Over-turn and profits keep at a reasonably satisfactory level, but always-until the first meeting after the Armistice-there is an undercurrent for deep foreboding and uncertainty.

On 20th December 1918, the brief, matter-of-fact record is made: "Ten members of the Dundee staff joined the Colours and of these made the supreme sacrifice."

Another particularly interesting minute had been recorded after a short meeting held in the Station Hotel, Perth, on 26th April 1917. It reads: "In view of Mr William Black, Manager of Ladybank Works, being called to the Colours, it seems probable that the Works will have to be closed at an early date".



The SS "Leviathan"

William Black belonged to a family which since 1900 has given an altogether remarkable total service to the Company. His father, George Black, was an employee for twenty-three years; William himself had contributed a record forty-nine years before he died at the age of sixty-three, while of his four brothers, with a further total of 110 years, Mr James A. Black retired in 1962 after forty-eight years and Mr Norman S. Black still continues in service with thirty-one years to his credit. All three, George, William and James A. Black, latterly managed one or more of the Company's Works. Of two grandsons who were also one-time employees and added eighteen years to the family score, George Black was killed at El Alamein in 1942 and Mr James D. Black emigrated to New Zealand.

Shipyard work continued to bull largely after the end of the First World War. When the three largest liners in the world – Leviathan, Berengaria and Majestic-were-re-conditioned on being handed over to the British Government by Germany, the Briggs bituminous coatings were reported to be in perfect condition. Nor were examples such as these in any way exceptional: nearly 150 other vessels belonging to the former Hamburg-America Line had been coated, while the contract lists of the day contain the name of almost every other famous steamship line in Britain.



Tanker discharging crude oil at Camperdown Refinery

With the coming of the twenties, more and more concern was being felt over the immense volume of drummed bitumen that had to be imported. Brought in mostly from the USA and Mexico, it was being needed for an ever-lasting variety of purposes. In 1924 and 1925, therefore, the Directors began to consider the possibility of erecting the Company's own oil distillation and bitumen refining plant in Dundee.

The plan was a bold one, conceived on the grand scale. In the first place it would necessitate finding ground adjacent to the river where the largest ocean-going tankers could tie up and discharge their cargoes of crude oil. At the same time such development would require a great deal of capital; yet before it was even started the country was in the throes of a general strike and plunging to the most crippling trade depression in memory.

There was, however, no weakening of purpose. Thanks in large measure to the vision and enthusiasm of James A. Briggs, backed by the then other Directors, Mr A.S. Briggs and Mr A.G.A Goudie, final decisions were reached: a suitable site was taken over on long lease from the Dundee Harbour Trustees, and detailed plans were drawn up. By 1931 installation of the tankage, the piping and the refinery column itself was actually under way, all the general civil engineering work, including the tank foundations, being carried out by the Company's own Division, Mr D.M. Young.



Site Clearance for Camperdown Refinery, January 1931



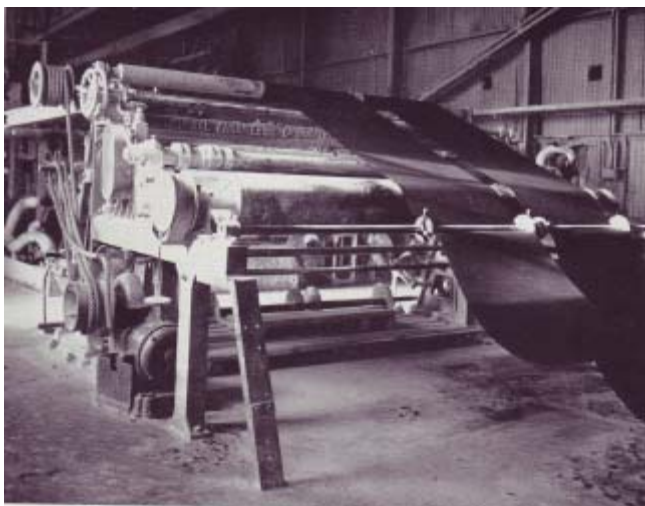
The Completed refinery, July 1931



Head Office, 1937

To finance the project a sum of £60,000 –mammoth for the times–had been raised, almost wholly by borrowing. Just as, nearly forty years earlier, William Briggs had gone forward in faith with his purchase of Dowrie Works, so now two of his sons had shared in a decision of momentous importance. History had repeated itself indeed.

Early in 1931 the new unit–named Camperdown Refinery after nearby Camperdown Dock–went on stream. Initial production capacity was 500 barrels a day, but so insatiable were the demands for diesel oil, lubricating oils and bitumen, that it was not long before extensions had to be made to increase production to 700 barrels a day. From the time of the opening until the present day, purchases of crude oil to keep the refinery supplied have amounted to more than a million tons.



Part roofing plant at King George Works

In 1937 yet another advance was made, once again thanks largely to the driving energy of James A. Briggs. On a site immediately adjoining Camperdown Refinery, the Company erected a large up-to-date plant for the manufacture of bitumen roofing felts and felt base flooring, so that the bitumen's which enter so largely into the manufacture of these materials could be pumped hot direct from distillation unit to the roofing felt machine. These new works were named King George Works in honour of King George V1, in whose coronation year they were opened. This

direct integration of the production of bitumen from crude oil and its almost immediate utilisation in the manufacture of bituminous building products means that quite literally, in this group of works crude oil goes in at one end and bitumen roofing felt come out at the other.

Between the Wars

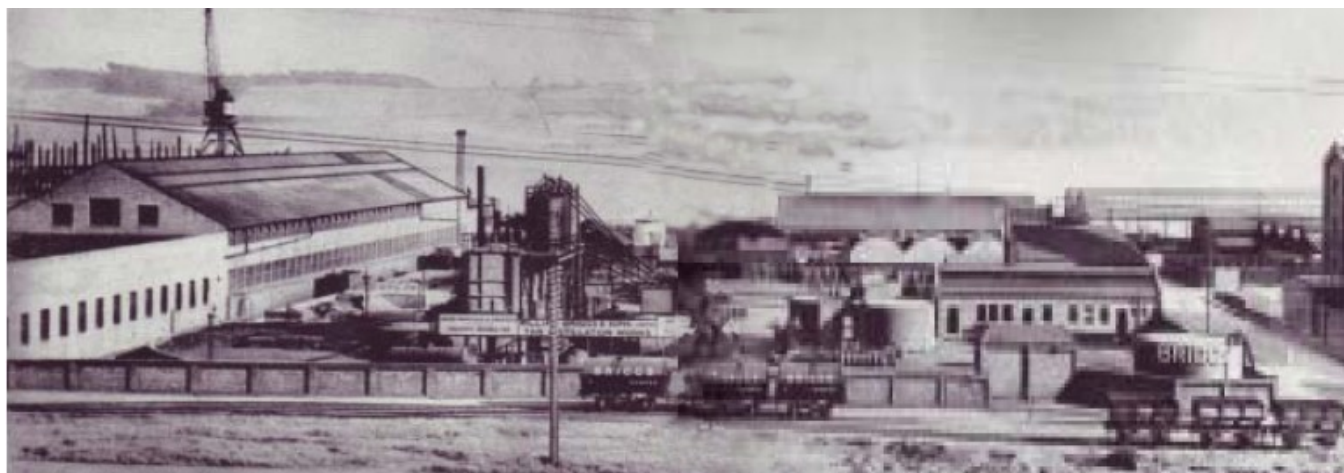


John Wooler

With these extensive new activities, another name comes into prominence-that of John Wooler. Mr Wooler had joined the Company in 1911 and worked first in Dundee, where among his various duties he dealt with advertising. In 1924 he moved over to the West to consolidate the Glasgow depot, which at the time was concerned largely with the coating of ships, docks gates and pipe lines. In 1931, however, he returned to Dundee to supervise-with characteristic care and thoroughness-the installation of the refinery and roofing plant. Appointed

Director in 1937, he became Chairman in 1956 and retained this position until his retirement in 1963.

Yet even these projects, important though they were, did not end the list during this era of bold, adventurous planning. No sooner was new refinery complete and on stream than the Directors had the opportunity of leasing from the Dundee Corporation the latter's tar distillation works situated at Carolina Port only half a mile from the new offices and plant. Even more capital was made available for this project and also for the carrying out of extensive renovation works of the plant. On the new premises cutback-bitumen manufacturing plant was installed, with ancillary tankage, and a bitumen blowing or oxidising plant; in addition new opportunities were provided for the tar distillation which had gone on continuously since they first days in Arbroath.



Tar Distillation works, Dundee

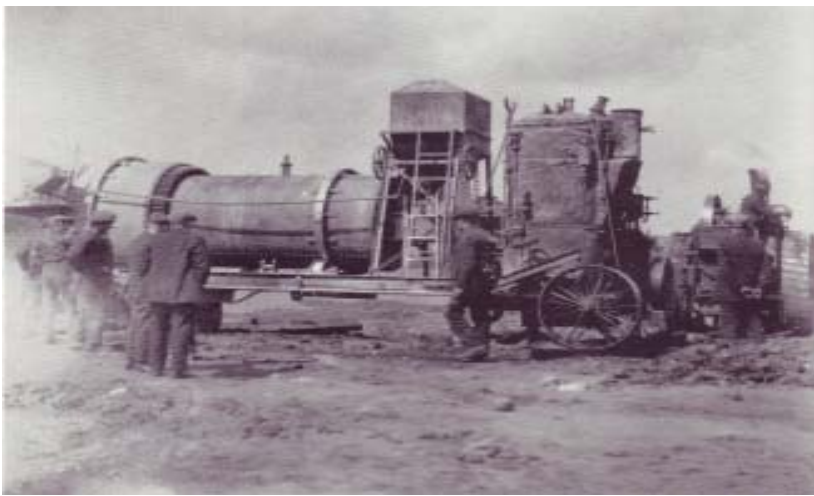
The benefits of this modernisation became quickly apparent, one particularly notable example being the manufacture of *Bituphalt* road binder- a product which had been specified for over thirty-five years now by road surveyors and quarry masters in most of the counties of Scotland. Also important was the streamlining which resulted from the availability of larger storage tanks and the use of the Company's own insulated rail cars and portable delivery bulk road tankers.

Meanwhile no opportunities were being let slip in the promotion of the sales side of the business. One of the most active and enthusiastic pioneers of the early 1920's was John MacLagan, who had joined the Company in 1906 and who was to become Director in 1937 and joint Managing Director in 1948.

The mode of transport which Mr Maclagan used for his journey's –one of the early belt-driven Douglas motor cycles-is still recalled with a certain amount of awe.

Strapped to the carrier of this machine was a slightly battered suitcase containing, in addition to shirts, collars and socks, samples of road tar compounds. On more than one occasion the lids of the sample tins were shaken off-with dire consequences for the shirts, collars and socks. Mr Maclagan, who, in the course of a particularly full private and public life, was twice provost of Carnoustie, retired from the Company in 1960 after a total of 54 years' service.

The Company had been one the earliest suppliers in Scotland of refined coal tar and later, a bitumen for the surface dressing of roads. In 1910 the first tar macadam contract had been secured- for a short section of road in the Burgh of Carnoustie-and once the war was over this type of work resumed energetically.



An early asphalt plant of 1920's

There was indeed such steady development in the production of road asphalt, road tar and bitumen macadams, that in 1924 it was decided that new plant should be purchased. Again this was due in large measures to the foresight of James A. Briggs, and following the visit of inspection which he paid to a number of different countries, a Warren asphalt plant was brought in America and was erected at a site about three quarters of a mile from the office. This was the most modern of its kind at the time and at once became the centre of all Company's asphalt operations.



John MacLagan

In London meantime Mr G.A. March, on demobilisation from the Royal Flying Corps, had joined his father as a representative of the Company. Gradually business there with the shipping industry came to be augmented by contracting work, and after some ten years Mr March started the Contracts department in the south-the first apart from Dundee. Much of the work consisted in the laying of roofing felt on flat roofs- a form of contact already carried out more and more widely throughout Scotland by the Company's own trained men. From these first beginnings the importance of roof contracting has grown out of all recognition, until today-with a complete specialist roofing contractors' service in each of the Company's branches-it forms a very significant proportion of the yearly overturn.

In the thirties much valuable business was being secured with the London Passenger Transport Board and by 1939 the Company was waterproofing practically all new Underground construction. Then came autumn and with it a swift, sad patch of cancellations-cancellations, however, which were destined to be no more than a lull before the bitter all-consuming storm of total war.



Waterproof sheeting on London Underground tunnels

Present day expansion

Present day expansion



Royal Engineers laying Briggs' sheeting on a temporary runway in France

Many of our Company's employees were called into the services, and for the first time women were employed at King George Works, in the manufacture of roofing felts. Among those who served in the Forces were four of the present Directors: Mr R.G.Bruce, Mr N.W. Briggs, Mr E.L.M.Stewart and Mr D.A. Lewis.

Gradually the inertia of the early war months passed. With steadily increasing speed and determination the country became geared to all –out effort. So, too, the Company swung into the rhythm of its war-time stride.

To begin with, valuable contributions were made towards the building of many armaments factories that came into being up and down the country; roofing, waterproofing and camouflaging were all requirements that had to be met with growing urgency. Later, however, as serious bombing began, repair-work became more and more important. Roofing felt in particular was in demand after raid devastation and, within the limits imposed by the rationing of fibre base, tar and bitumen, the Company was kept fully busy. Other contracts called for the waterproofing of static water-tanks, while a variation which came into the secret category was the prefabrication of special bituminous sheeting for use on temporary runways.

Present day expansion



Bomb damage at Dowrie Works, 1941

In shipping, an interesting speciality was the “plastic armour” which was applied to the wheel-houses and bridges of vessels of many different kinds. This consisted of a coat of mastic asphalt with an exceptionally high stone content, comprising a special granite chip from Lions Face Quarry, in Aberdeenshire. Over the war years many seaman owed their lives to this protection.

At the time of the Coventry “Blitz”, Mr G.A. March and the representatives of two other companies engaged on similar work were formed into a voluntary control of the roofing felt industry. So satisfactory was this small group in acting on the Government’s behalf that it continued to function until 1946, making redundant the Statutory control which was also in existence, but which in fact never had to be exercised at all.

Both in Scotland and in England, however, damage was suffered through enemy action. In the North it was the Dowrie Works that were hit, a short, sharp raid by the German planes in June 1941, leaving buildings and plant fiercely ablaze, at 6 Lloyds Avenue, was ravaged by bombs, thus necessitating a transfer to the store and small office at Vauxhall.

Present day expansion



Camperdown Refinery after modernisation 1962

The latter too came in for severe damage by bombing, a misfortune which, nevertheless, seems to have left one person least quite undismayed-the London office manager. Although the office walls had been demolished, he had managed to salvage a desk and drag this on to a firm landing at the top of the stair. Here he calmly sat down and proceeded to make up the wages as though working in the open were all part of everyday routine. The Vauxhall premises were continuously enlarged and, having been subsequently purchased, remained the Company's head office until 1965.

Meanwhile, from early in the war right on until 1947, the refining unit at Camperdown was shut down, one reason for this being that tankers were not allowed on the East Coast. The tanks themselves, however, were used jointly by the Admiralty and the Petroleum Board, both for storage and for the re-fuelling of submarines and other small naval craft.

With the cessation of hostilities, the Company set about putting its house in order, one of the first moves being the rebuilding of the refining unit in order to meet constantly growing demands. As soon as the steel supply position looked sufficiently hopeful, the order for the new plant was placed. At the same time arrangements were made for the installation of additional tankage, to accommodate the bigger cargoes of topped oil from Venezuela, brought in modern ocean tankers.

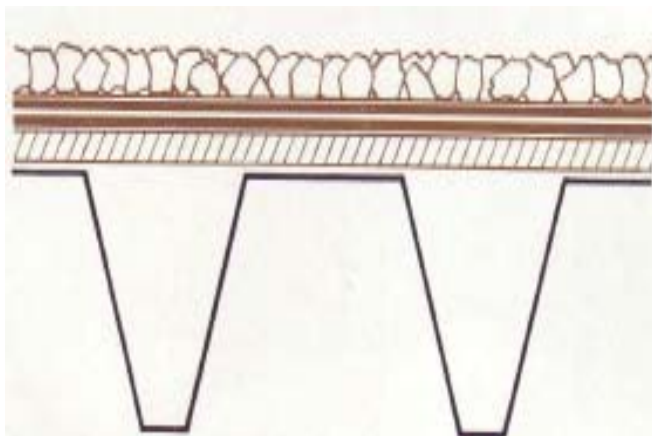
Erection began early in 1952. Piling, fractionating tower, strippers, pump-houses, effluent disposal treating plant –gradually the work progressed. By summer order was emerging out of seeming chaos; in late autumn the plant was brought on stream, capacity being about 1,000 barrels a day.

Overhauled and partially renewed, the original plant was retained to provide a stand-by unit, or, if necessary, during periods of peak demand, to combine with the new installation to give a total throughput of up to 1,700 barrels a day. Throughput of the present units amounts to 220/240 tons of crude oil a day compared with the 75/80 tons on the original plant.

With reviewed vigour the Company resumed trading in three main fields of activity: Building Contracts, Sales, Roads and Civil Engineering.

It was in the first of these that the biggest advance came. Complete roofing contracts', using roofing felts and bitumen's produced at King George Works had been carried out all over the country.

For some time, however, intensive research had been going on with the view to finding a new medium of roof construction. Eventually the *Bitumetal* system was evolved: a rock deck in toughed aluminium sections, with a layer of insulating material and a waterproofing covering a product entirely suitable for installation by the Company's own craftsman.



Surfacing 2 or 3 layer built-up roofing insulations

Aluminium or steel decking

A typical Bitumetal section

Particularly enthusiastic in driving forward with the new system was Mr G.A March, and he had the satisfaction of seeing its immediate success. Constant research had ensured its further development and kept it right in the forefront of the roofing industry despite intensive competition from other similar materials.

Large contracts in built-up roofing and *Bitumetal* have now been carried out all over Britain and in many other countries in different parts of the world. One particularly important milestone in the progress of the Building Contracts Division was the securing of the contract for roofing *Bitumetal* the vast new mills at Margram, Glamorganshire, for the Steel Company of Wales. The area involved was some 3,000,000 sq ft and so successfully was the contract carried out those further contracts followed for the Steel Company at their Trostre and Velindre Works, the value amounting in all too over £1,000,000.



Rolling Mills for the Steel Company of Wales Ltd, at Margam, Port Talbot, Glamorgan. The first major project carried out in Bitumetal roofing

An interesting follow-up to this came when a group of Italian industrialists, on tour in Britain saw the roofs on the Welsh steel works and immediately specified *Bitumetal* for an extensive new steel mill at Cornigliano in Genoa.

One notable experiment closely related to the *Bitumetal* venture has had the curious result of renewing the old link which William Briggs created over a hundred years ago with the Andersonian University Glasgow. In order to encourage research into modern developments in roofing, three year grant was made for post-graduate study at what had become the Royal College of Science and Technology – now the University of Strathclyde.

Present day expansion

The original grant ended recently, but it is being continued by the provision of a scholarship for the study over a further three-year period of the Company's decking and allied products. Already, as a result, there have been significant improvements both in quality and in production technique.

Although the first of the Company's fourteen branch offices, in London, was established as long ago as 1900, no less than eight have been opened since the end of the war –a fair measure of the more recent momentum of business. Glasgow, in 1911, was first to follow London, but was not until 1924 that Edinburgh was added, with Norwich, Aberdeen and Liverpool coming in towards the mid-thirties. The post-war eight have been Forres and Leicester in 1945, Belfast, Dublin and Cardiff, Bristol, Bradford and- most recent of all, in 1961 Newcastle-upon-Tyne.



New premises at Goodwyns Place, Dorking covering London and Southern areas

For a number of years it had been becoming increasingly obvious that the London Office premises in Vauxhall were over-crowded and altogether inadequate. The opportunity was boldly seized, therefore, to break away completely from the city: a spacious country mansion, standing high in its own pleasantly wooded grounds, was purchased at Goodwyns Place, Dorking and duly in April 1965, the move out was made. For many staff of over eighty, the change to the comparative peacefulness of the Surrey Countryside had been an unexpected pleasure; in particular, perhaps, it has been of benefit to those now occupying the large and roomy drawing office, where plans are prepared for the building contracts work throughout England and Wales.

A considerable part of the business of the Sale Division can trace its origins back in the first plant at Dowrie Works, which was installed for the manufacture of bitumen dampcourse, sheeting's and roofing's; today these materials, in the most modern forms and conforming to British Standard Specifications, are supplied extensively to the building and civil engineering trades. In addition considerable business is also carried out with the general public in roofing felts for sheds and garages, protective paints for exterior use and a range of compounds and solutions for building maintenance.

Present day expansion



G .A. March, the present Chairman



R. G Bruce, Deputy Chairman & Managing Director

Among the uses to which the Company's growing resources have been put has been the acquisition of several subsidiaries.

First, in 1944, came The Burnside Quarry Co Ltd, owners of a road stone quarry at New style, some ten mile north-west of Dundee, The whinstone produced there is a very hard and has a high crushing strength conforming to the standards laid down for dam walls and other similar structures. Heavy tonnages of whinstone chips are available all the year round for road spray work and concrete aggregates. Another advantage to customers in the area has been a modern road asphalt preparing plant, installed by the Company's Road Contracts Department.



The Burnside Quarry Co Ltd

Present day expansion

**Castlehill Sand & Gravel
Co Ltd**



Quarry & Brick Co Ltd



Six years after Burnside came the addition of the Castlehill Sand and Gravel Co Ltd. This has made available glacial deposits near the River Earn at Blairgowrie and in other areas, providing high-grade gravels and sands, which have been specified for many of the Scottish hydro-electric projects.

Yet another, more recent, subsidiary is the Nairn Quarry and Brick Co Ltd, located some three miles south-west of Nairn. The stone quarried here is first-class red granite, shown to impart one of the lowest shrinkage figures to mass concrete. So much valued indeed is this characteristic that it led to the stone being specified for the road deck on the Tay road bridge.

Present day expansion



The new combined roofing and damp course manufacturing plant

Yet, however great the interest that may have been attached to the acquisition and development of Castlehill Sand & Gravel Co Limited and Quarry & Brick Co Ltd subsidiaries, an undertaking of much greater importance was begun in Dundee itself, appropriately enough during Centenary Year.

In 1965 there was initiated one of the largest single capital projects the Company has ever known – the financing of a combined roofing and damp-course manufacturing plant, together with a central store. The purpose of this was to achieve greater centralisation and automation, and it was a memorable occasion when construction was actually begun at the King George Works site.

Present day expansion

The new plant, specially designed for the company, incorporates the most up-to date engineering devices available in this country, and, indeed some of the Company's technical staff has visited America, Canada and the Continent to ensure that no modern features of value have been overlooked.

One likes to imagine how William Briggs himself would have given generous, wholehearted approval to this project- a project almost symbolically calculated to ensure that the Company can take its rightful place in the forefront of preparations for the new industrial era opening up ahead.



The finished goods store and dispatch bays King George Works

The Company today

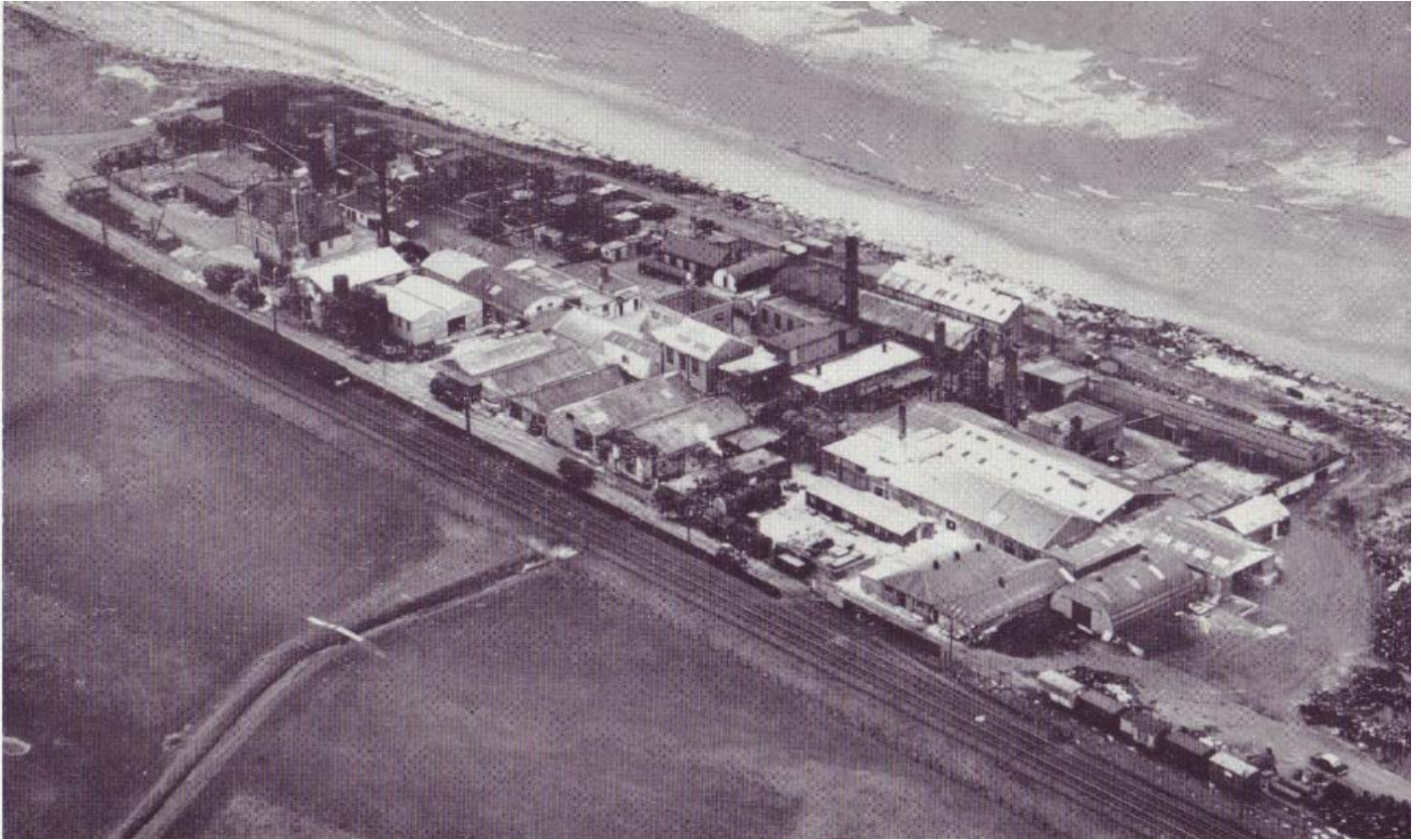
The Company today



Camperdown Refinery and King George Works, Dundee

It is almost humbling to stand for a moment at the hundredth milestone and look back once again to the far-off start of the road. So much has come from so little, and it is right that the opportunity should be seized to see and appreciate this in true perspective.

One pictures, for instance, the old salt works property in Arbroath, taken over boldly by William Briggs and fitted out with its crude stills for tar and pitch and ammonia. And then one turns to look at the Company's factories today: Dowrie near Arbroath; the Tar Distillation Plant; the King George Roofing Felt Works; Camperdown Refinery- a tanker lying at the quay wall discharging its cargo of crude oil.



Dowrie Works, Elliot Junction, near Arbroath

One turns up the first wages book, reflecting that the employees who once numbered two now total around 2,400. Or one reads the first tentative advertisements for asphaltting in Forfarshire and thinks by comparison of a £1,200,000 tender for a stretch of motorway, or of the problems involved in an intricate *Bitumetal* contract in this country or at the other side of the world.

The Company today



Tar Distillation Works, Dundee

A hundred years ago the whole responsibility for policy and planning production, sales and finance, rested on the shoulders of one man. Today the responsibility remains under the Directors and their Executive Committee, of which there are now four Boards of Management responsible for all the complexities of works, sales, building contracts and roads.

There is, however, no possibility of assessing individual contributions to the Company's wellbeing and development down the years. In a number of families long, loyal service has come to be taken almost for granted; in many others there has been no less evidence of enthusiasm.

The Company today

Former Directors

J A Briggs
Director 1935-55
Managing Director 1935-48
Chairman 1935-47

A S Briggs
Director 1935-64
Managing Director 1935-51
Chairman 1947-56

A J A Goudie
Director 1935-41
Managing Director 1935-41

J McLagan
Joined the Company in 1906
Director 1937-60
Managing Director 1948-60

J Wooler
Director 1937-63
Managing Director 1941-62
Chairman 1956-62

The Company today

Board of Directors



D A Lewis
Joined the Company in 1932
Director 1962-

G A March
Joined the Company in 1919
Director 1941-
Managing Director 1951-65
Chairman 1962

D M Young
Joined the Company in 1921
Director 1953-

N W Briggs
Joined the Company in 1933
Director 1941-

J S Smith
Joined the Company in 1931
Director 1962-

R G Bruce
Joined the Company in 1921
Director 1935-
Managing Director 1960-

E L M Stewart
Joined the Company in 1926
Director 1962-

Executive Committee



W S Henderson

D A Lewis

J S Smith

R G Bruce

D M Young

E L M Stewart

B R Guild

N W Briggs

Board of Directors 1965

The Company today

Company Structure (1965)

Boards of Management

Building Contracts Division		
D. A Lewis	Director	
L H M'Coan	Administration	London and Norwich
R. H Boyle		Dundee, Edinburgh, Newcastle
J. T Conway		Liverpool, Bradford
A. M Smith		Leicester, Cardiff, Bristol
S.A.A Clark		Glasgow, Aberdeen, Belfast, Dublin
Sales Division		
R.G Bruce	Managing Director	
J S Smith	Director	
E.L.M Stewart	Director	
D.M Young	Director	
B.R Guild	General Sales Manager	
R. S Moir	Road Sales	
Roads & Civil Engineering Division		
D.M Young	Director	
R Gibson	Paving Manager	
J.C Baillie	Civil Engineering Manager	
A.G McGregor	Office Manager	
R.B. S Braid	Area Manager	North Scotland
J.B Sinclair	Advisor on Plant Purchase and Maintenance	
Works Division		
N.W Briggs	Director	
E.L.M Stewart	Director	
W.J. Wooler	Production Manager	
Subsidiary Companies		
R.G Bruce	Director	The Burnside Quarry Co Ltd
D.M Young	Director	Castlehill Sand & Gravel Co Ltd
J S Smith	Director	Castlehill Sand & Gravel Co Ltd
J. Anderson	Director	The Burnside Quarry Co Ltd & Castlehill Sand & Gravel Co Ltd
W.F.Croll	Manager	The Burnside Quarry Co Ltd & Castlehill Sand & Gravel Co Ltd
R.B.S Braid		Nairn Quarry & Brick Co Ltd
W.S Henderson	Secretary	Nairn Quarry & Brick Co Ltd

The Company today

It was particularly fitting that one of the ways in which it was decided to mark Centenary Year was by making a start in the recognition of employees' long service. Gold watches, suitably inscribed, were presented to all those with thirty or more years' continuous service with the Company, the total number of recipients on this first occasion being fifty-five. Of outstanding interest was the fact that included among those who qualified was all members of the Board of Directors.

Between May and September 1965, a series of functions marked the Centenary Year in a particularly memorable way. All members of the senior staff along with their wives, enjoyed a weekend at Gleneagles Hotel, while each of the branch offices in turn had its own dinner, attended by the Chairman or deputy Chairman and by one or more of the other Directors. Without exception these events were happily successful, thoroughly enjoyable in themselves and giving unique opportunities to members of staff to meet and become acquainted.

As recollections of these various functions fade, attention turns in still sharper focus to present problems and new plans for the future. How these plans will develop, along what unexplored avenues they will lease the Company, will be for the chroniclers of the next decades to describe.

Perhaps all the same, it may be claimed without undue presumption that the foundations laid so soundly a hundred years ago are no less reassuring now. Surely on them and the more immediate past the Company may continue to build with confidence, playing its own worthy part in the striving of the country as a whole for soundness of economy and the fairer wellbeing of all.

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