



THOMAS CRAPPER
d.1910



Company Founder



THOMAS CRAPPER was born in Thorne, near Doncaster, Yorkshire. As a young boy, he appears to have decided that his future lay in London, and aged only eleven walked to the capital where he found employment with a plumber in Chelsea. In 1861 he established his own business in Robert Street, and in 1866 moved to Marlborough Road where he established a manufactory including a brass works.

In spite of his fame, Crapper actually had very little to do with the development of the water closet. No major stages in its development are attributable to him, although he took out a patent for a self-rising closet seat in 1863 and another in 1902 for a trough closet fitted with water-sealed traps under each unit. His biographer, Wallace Reyburn, has emphasised his role in developing water waste preventing cisterns, but he was not responsible for any major improvements in these either. By the time he took out a patent for automatic flushing cisterns in 1891, 'pull and let go' syphonic cisterns were already well established. He also patented a disconnecting trap for drains, a seat-action automatic flush and, in 1903, an improved type of stair tread.

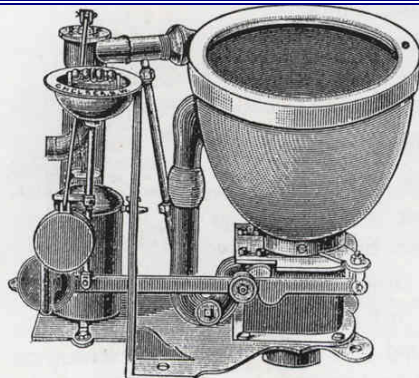
Thomas Crapper's place in the history of sanitary equipment, therefore, is not that of a pioneer, but rather as a representative of the many Victorian sanitaryware manufacturers who profited from efforts to improve standards of public health and domestic sanitation from the 1840s. Like many sanitary engineers, Crapper's technical skills were based in metal working – in his case, plumbing and brass founding – and not potting. Crapper produced a wide range of sanitary fittings including domestic ware – such as the attractive ceramic pedestal closet, the 'Marlboro', introduced in 1887 – and drain components. Cast-iron man-holes bearing his name are widely found: there are three in Westminster Abbey. In 1886 he was granted a royal warrant after installing new sanitary fittings at Sandringham House, the home of the Prince of Wales.

In 1907 the firm moved to 120 Kings Road, Chelsea and Thomas sold the business to his old partner, Robert Wareham and his nephew, George Crapper. He was remembered as a genial man of average height with a grey beard similar to that of George V. He died in 1910 and is buried in Elmers End Cemetery, south-east London. The firm continued to trade independently until 1966 when it was taken over by John Bolding and Co. who went bankrupt in 1969. Crapper and Co. was sold to another firm and lay dormant until acquired by Simon Kirby in 1999. Now back in business at Alscott Park, Stratford-on-Avon, Thomas Crapper and Co.'s range includes a water closet, the 'Venerable', cast-iron cisterns and lavatory basins based on items produced by the company in the late nineteenth century.



Thomas Crapper. (*Thomas Crapper and Co. Ltd*)

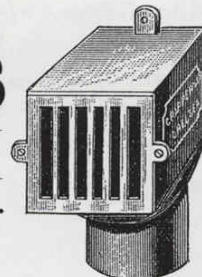
From Bogs, Baths & Basins," David J Eveleigh, 2002 (CIBSE Heritage Group Collection)



THOMAS CRAPPER & CO.'S SANITARY APPLIANCES

Catalogue on application.

THOMAS CRAPPER & CO.
Marlboro' Works,
CHELSEA, LONDON, S.W





THOS. CRAPPER & Co.,
Ltd.,

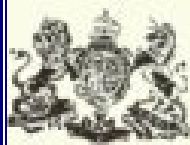
Sanitary Engineers

TO

His Majesty the King

AND

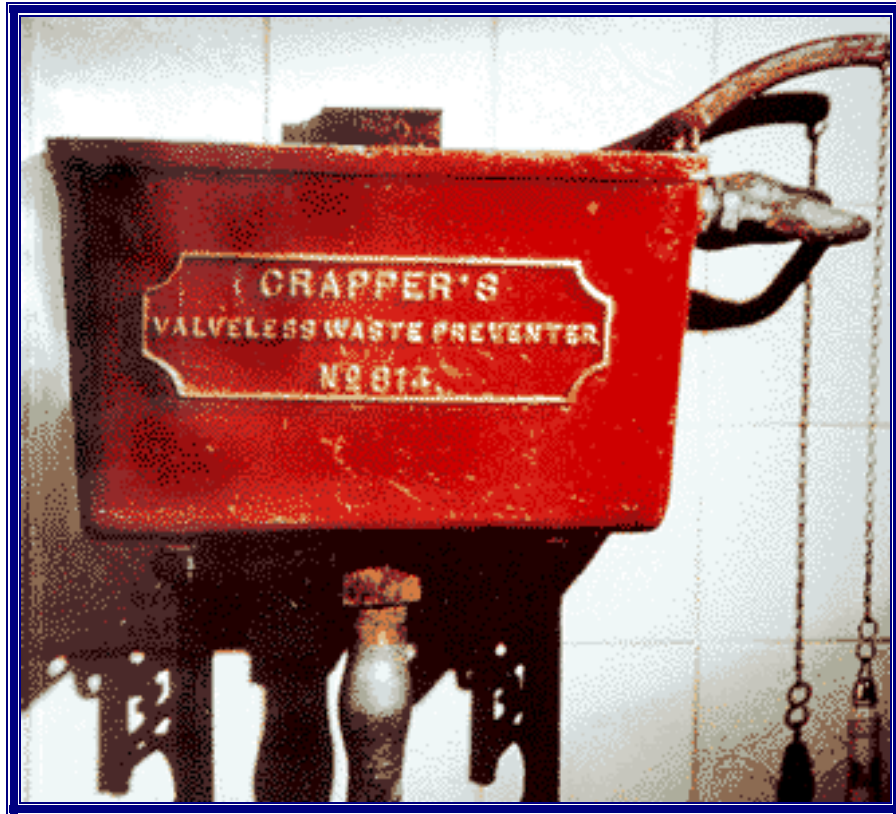
H.R.H. The Prince of Wales.



BY APPOINTMENT.



BY APPOINTMENT.



CRAPPER'S

Improved
Registered Ornamental
Flush-down W.C.

With New Design Cast-iron Syphon Water
Waste Preventer.

No 518.

Improved Ornamental Flush-down W.C. Basin
(Registered No. 145,823), Polished Maho-
gany Seat with flap, New Pattern 3-gallon
Cast-iron Syphon Cistern (Rd. No. 149,284),
Brass Flushing Pipe and Clips, and Pendant
Pull, complete as shown £6 15 0



GEORGE CRISPIN
1868-1950



8th President IHVE 1905-06
(Photo CIBSE Heritage Group Collection)

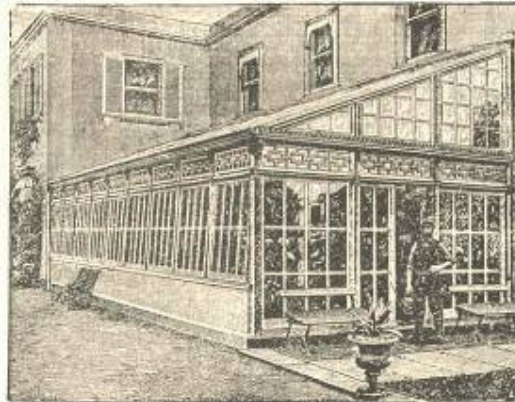
CRISPIN'S, BRISTOL.

Horticultural Builders.

HEATING, VENTILATING, and DOMESTIC
ENGINEERS.

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JAMES CRISPIN & SONS,

F.R.B.S.

Head Offices:—NELSON STREET,

Works:—ST. PHILIPS,

Telegrams:—
CRISPIN'S, BRISTOL."

BRISTOL.

(vi.)

Photograph taken at Summer Meeting, 1905.



Reproduced by kind permission of "The Plumber and Decorator."

The IHVE Summer Meeting was held in Bristol

The Chartered Institution of
Building Services Engineers

Three Pines,
3, Ivywell Road.,
Sneyd Park,
Bristol. G.
July 12th 1943,

Institution
History of The Association.

Dear Miss Moran,

Herewith are my recollections of early History.

In the year 1898 my firm was approached by a Mr. Harris as to whether a member of our firm would join an Association of Engineers of which Mr. Grundy, Senior was President.

We turned it down as on enquiry we found the main mover was a Company Promoter.

Later on in 1899 when a circular was received inviting to inaugural meeting of Meeting Engineers at Kings Hall, Holborn Restaurant and circular was signed by the late Edward Taylor, I of revered Memory I arranged to attend and did so on return journey from Luton where we had a contract on and where I had attended a Masonic Function.

On entering the Hall I saw about fifty people standing about in small groups and was struck with the deadly silence, Louis Pearson I Sir Louis now I came forward and said he was glad to see someone he knew.

Always inclined to be matey I walked round to the groups told them my name and asked theirs and got them to fraternize and in ten minutes or so there was a buzz of conversation like a Corn Exchange.

Edward Taylor Secretary Pro-tem read the notice calling the meeting and asked for name of chairman for the day.

I mentioned that Walter Jones I also of blessed Memory I another friend of mine was the oldest man in the Trade and he was for it, he was a splendid Chairman and was elected President for 1899.

Had it not been for him Sir Louis Pearson, John Palmer, Edward Taylor and a few others I could mention who paid out the original Promoter there would not be the flourishing Institution thereis to-day.

A Banquet had been arranged and after the loyal toast had been honoured Walter Jones said, ' Well Gentlemen we have had a very harmonious business meeting and I trust some-one will favour us with a Song ' there was a long silence and an Engineer sitting next to me said:- ' You look as if you could sing a good song ' I said well I'am not exactly bursting to sing but I have a roll of songs downstairs.

When I was for it and as no-one else could be prevailed on to hold forth I had to render the three chorus songs:-

The Longshoreman,
Three for Jack,
The Powder Monkey.

They all joined in manfully and with the aid of dear old John Palmer's few racy tales a splendid evening was spent and The Powder Monkey Chorus of soon we'el be in London Town proved a fact.

My Certificate is dated the 28th of February 1899.

The first Summer Meeting at Stourbridge was a great success and I was able to present a Photograph of Members taken that day to The Institution and I trust the London Blitz has not destroyed it.

14. Early Days of the IHVE. As recounted in a letter dated 12 July 1943 by George Crispin (President 1905) to Miss Jesse Moran, IHVE Acting Secretary, 1941/5. CIBSE Archives.

I can recall many Summer Meetings apart from mine as President in 1905 and three of them stand out in my memory:-

First:- The Dublin Meeting with our revered friend MacQuire as President.

The Second & Third the Council asked me to arrange.

The Second owing to illness of President Simpson I arranged at Windsor with the steamer Queen of England taking us up river with dinner at the Crown at Cookham, I had asked that Messrs Pearson & Jones should act with me, they did we met there previously & had a good dinner, they told me to get on with it and I did.

The Third Summer Meeting I arranged with White Hart Headquarters was lunch at Staines, tea at Hampton Court and evening finish at the Franco-British Exhibition.

The above Summer Meeting was arranged the second year of Mr. W.N. Madens Presidency as it was felt not to be fair he should have second expense as President.

During my year as President I arranged Council Meeting the first evening and supper and a Masonic Reception Committee of four Brethren and their wives was a great help to me.

I consider the annual gatherings of Past Presidents has proved a great service to The Institution.

I was glad when they approved of my proposal for a Reception Committee at Summer Meetings and instanced that two Engineers who I had chummed up to at Summer Meetings told me they felt quite out of it knowing no-one there and that they had decided not to attend meetings again, but after being introduced by me to other members everything was merry and bright.

Having reached my 76th year and travelled the world I have proved:

That is the human touch in this world that counts

The touch of your hand and mine

That means far more to the fainting heart

Than shelter or bread or wine

For shelter is gone when the night is o'er

and bread last only a day

But the grasp of the hand and the sound of the voice

Sing on in the soul, always.

I could with thankfulness recount of many friendships formed, many alas broken by death and of men like my dear friend and brother Sam Naylor who so many times have seconded my efforts on the Presidents Outing Day in telling him and the Lady President how much we loved and appreciated them.

Good mens lives are a blessing to us and their death an inspiration to us.

We are Ships that pass in the night but for goodness sake let us signal to others as did the Night Watchman of old - Alls Well.

In conclusion I will say to all members as I did in my Presidential address in 1905:-

Do what you can being what you are

Shine like a glow-worm if you cannot be a star

Work like a pulley if you cannot be a crane

Be a wheel greaser if you cannot drive the train.

With all and to all good Wishes to each Member of the Institution hoping that the War will soon end so that enjoyable Summer Re-union Meetings may gladden many Hearts.,

Yours Faithfully.

George Crispin
Past President 1905 & 6.

OBITUARY

GEORGE CRISPIN

The Council regrets to record the passing of Mr. George Crispin, who died on Tuesday, March 21st, 1950, at the age of 82.

Mr. Crispin was a Life Member of the Institution and was elected in 1899, becoming President in 1905.

He joined the firm of James Crispin & Sons, Bristol, some sixty-five years ago, and at the time of his death he was the only surviving partner, as his brother had pre-deceased him in 1901.

Mr. Crispin was very active in the affairs of the Institution during the earlier years and always retained his interest, particularly in the Summer Meetings. He attended the first Summer Meeting held in Stroudbridge on Tuesday, July 18th, 1899.

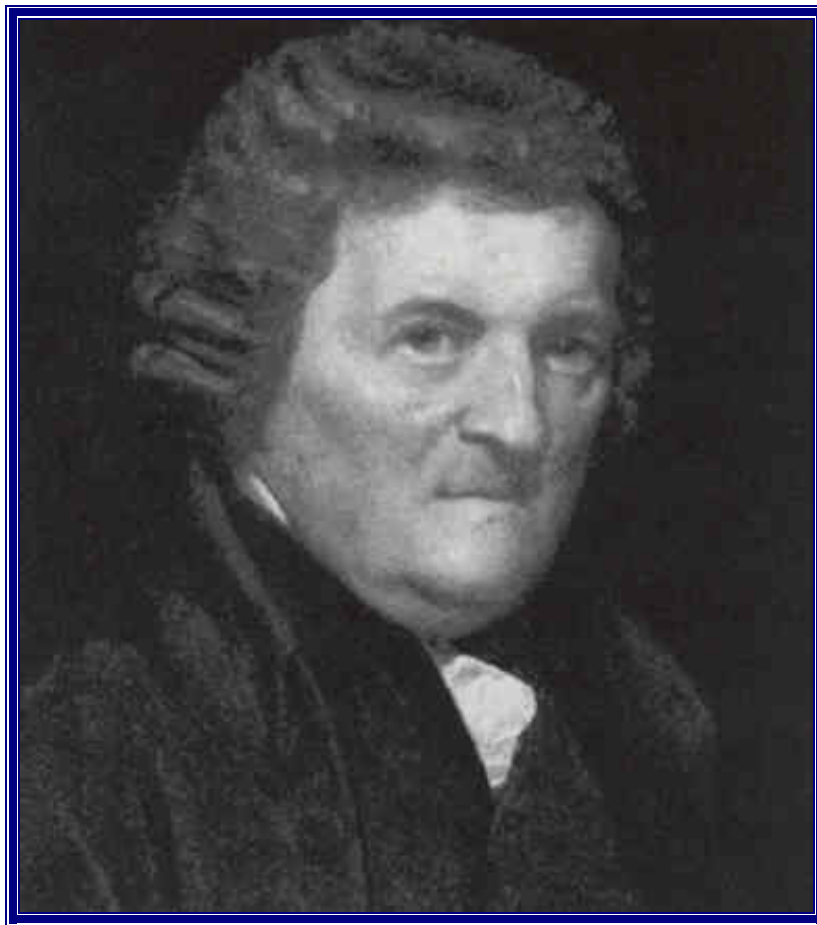


He became a member of the original Reception Committee when this was founded in 1930 and retained his interest in the social activities of the Institution to the end. He sent an apology for non-attendance together with greetings to members at the Summer Meeting at Bournemouth in 1948, and in a later letter he expressed the hope of being present at the 1949 Meeting if this were held in the West Country. He wrote: "My doctor will not allow me to come to London, but I may meet you at the Summer Meeting. There is no doubt that the happiest days of my life have been spent at our Summer Meetings."

Mr. Crispin was Chairman for some years of the South-Western Branch of the Association of Heating, Ventilating and Domestic Engineering Employers, and he was also a prominent Freemason, being connected with the Vale of Bristlington Lodge, Bristol, and the Radiant Lodge, London.



ALEXANDER CUMMINGS
c.1732-1814

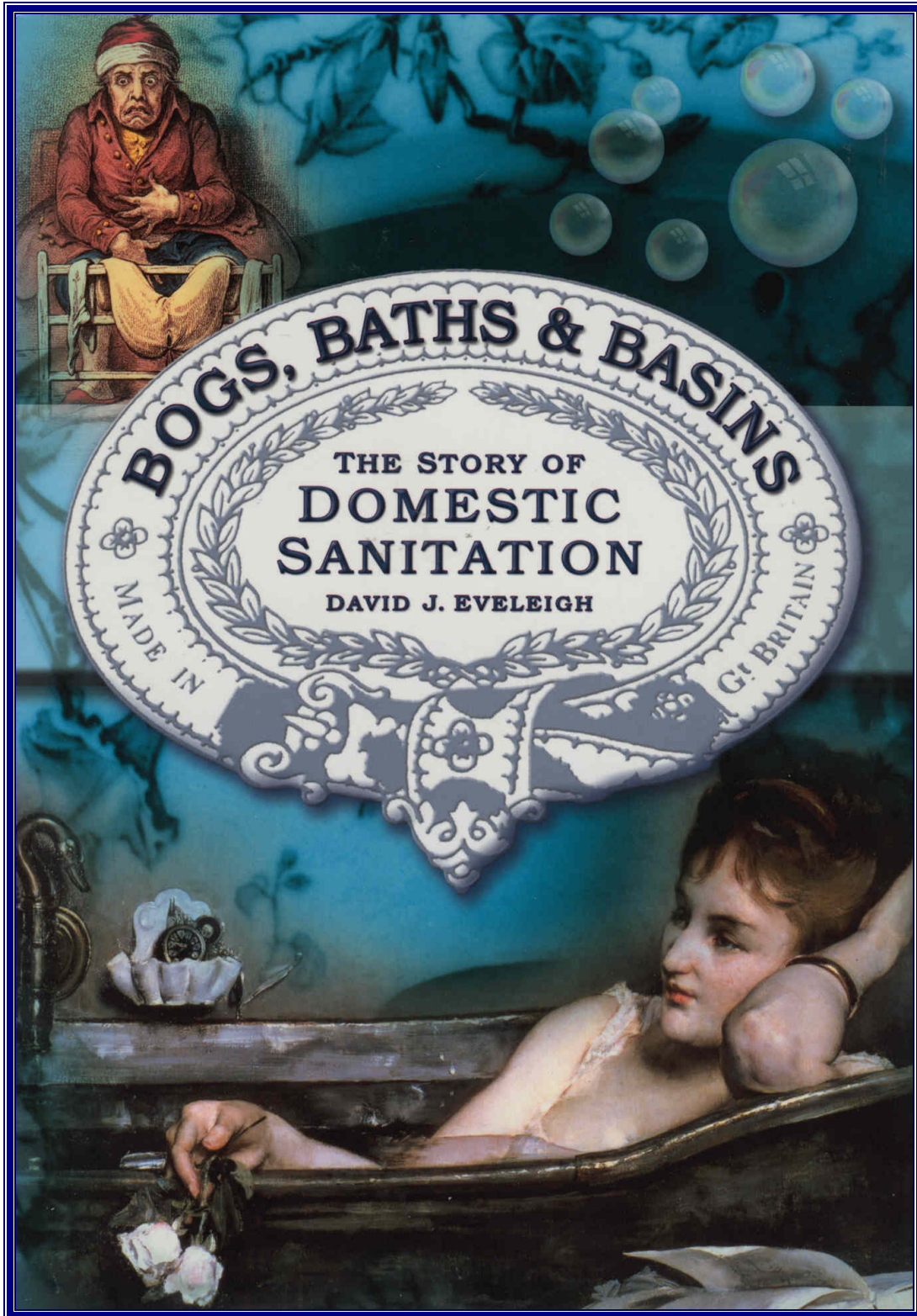


Inventor of a Water Closet



ALEXANDER CUMMINGS is believed to have been born in Edinburgh in about 1732. In the second half of the eighteenth century he was a leading London clock and watchmaker and was elected an honorary freeman of the Clockmaker's Company in 1781. The Clockmaker's Library has a folio volume containing memoranda, descriptions, observations and correspondence collected by Cummings between 1766 and 1812. This provides some idea of the wide range of his interests in mechanical and scientific matters including barometrics, hydraulics and centrifugal force. He is credited with the invention of a clock escapement and made a barometric recording clock for George III. In 1766 he wrote *The Elements of Clock and Watch Work* and also assisted the Board of Longitude in laying down the conditions for the testing of Harrison's fourth marine chronometer. At the time of his 1775 patent for water closets he was working at 'The Dial and Three Crowns' in New Bond Street. He died at Pentonville in 1814.

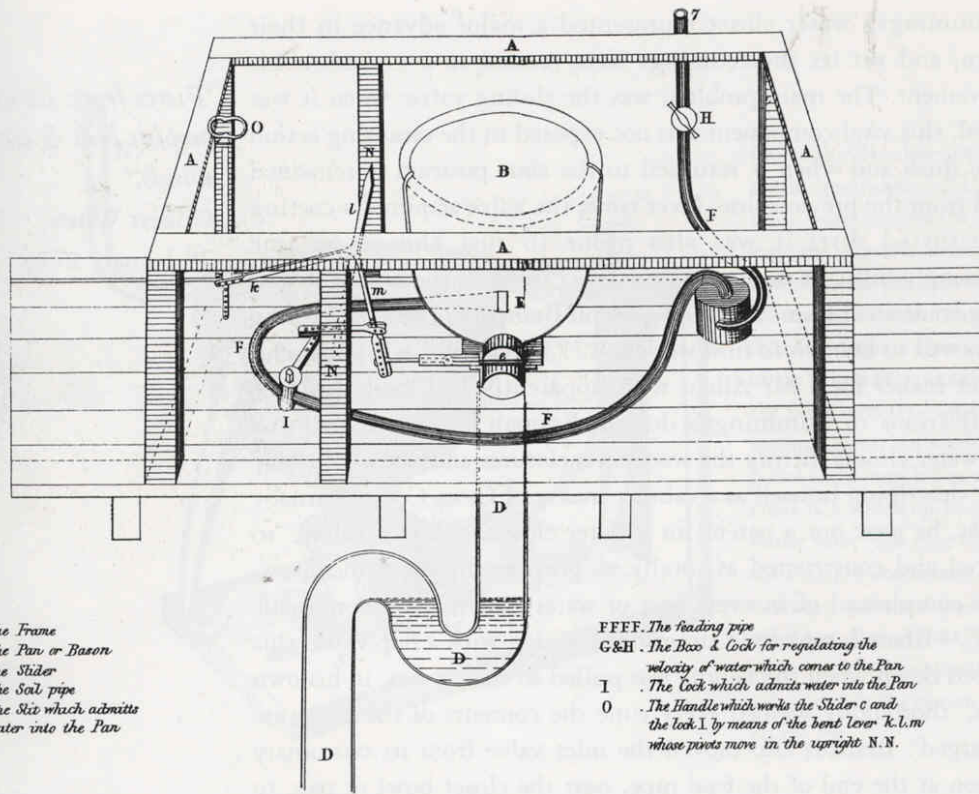
From Bogs, Baths & Basins," David J Eveleigh, 2002 (CIBSE Heritage Group Collection)



2002 (CIBSE Heritage Group Collection)

Fourteen years after the initial building of Osterly House, Alexander Cummings, (c. 1732–1814) the Bond Street watchmaker and leading horologist, was granted a royal patent for his improved water closet. Several important innovations were incorporated in his design and one in particular provided further illustration that water closets must have been familiar in London by this time. ‘The stink trap hitherto used for water closets,’ wrote Cummings in his patent specification, ‘is too well known to require a description here.’ Without a seal sewer gases could enter a room through the closet, so it was essential that a water-sealed trap was fitted below the device. This had been imperfectly understood by Wood in Bath in 1728, but the use of traps must have spread by the 1770s, and the type which Cummings was all too aware of was almost certainly the so-called D trap. This trap was widely used as it was a straightforward matter for a plumber to make one from pieces of sheet lead soldered together. While it cut off the foul smells from the drain, the D trap unfortunately generated its own, as the water it contained was not completely replaced by the flush water. It was not, in other words, self-cleaning. As Cummings pointed out, ‘it becomes in itself a magazine of foetid matter, which emits an offensive smell every time that it is disturbed by using the water closet’. Instead, he specified a trap which was ‘recurved’ about 12 or 18 in below the pan so that it held sufficient ‘stagnated water’ to cut off all smells from below and which, ‘is totally emptied and succeeded by fresh [water] every time the pan or bason is emptied’.

The introduction of the water-sealed trap – popularly known as the U bend – was, in itself, an important development, but Cummings also introduced other improvements to the water closet. The seal to the soil pipe was further protected by an outlet valve at the bottom of the pan. This was operated by a handle and angled lever: when the handle was pulled up the lever drew the valve or ‘slider’ to one side. Simultaneously, the cock or inlet valve which released the flush water was opened by a lever working off the main one controlling the sliding valve. This simultaneous action of the inlet and outlet valves was to remain a basic feature of all valve closets until their demise in the early twentieth century. Cummings made the pan circular with the deepest part under the middle of the seat to ensure that the ‘soil’ – to use the patentee’s own word – would be deposited near the outlet and submerged in the water held in the bottom of the pan by a sliding valve. The flush water, instead of pouring into the pan from a pipe or spout just below the seat, entered through a rectangular slit placed just 4 or 5 in above the outlet. As Cummings explained, ‘The water entering the pan or bason through this slit with rapidity is circulated and accumulated within it, so as to wash or cleanse it.’¹⁰

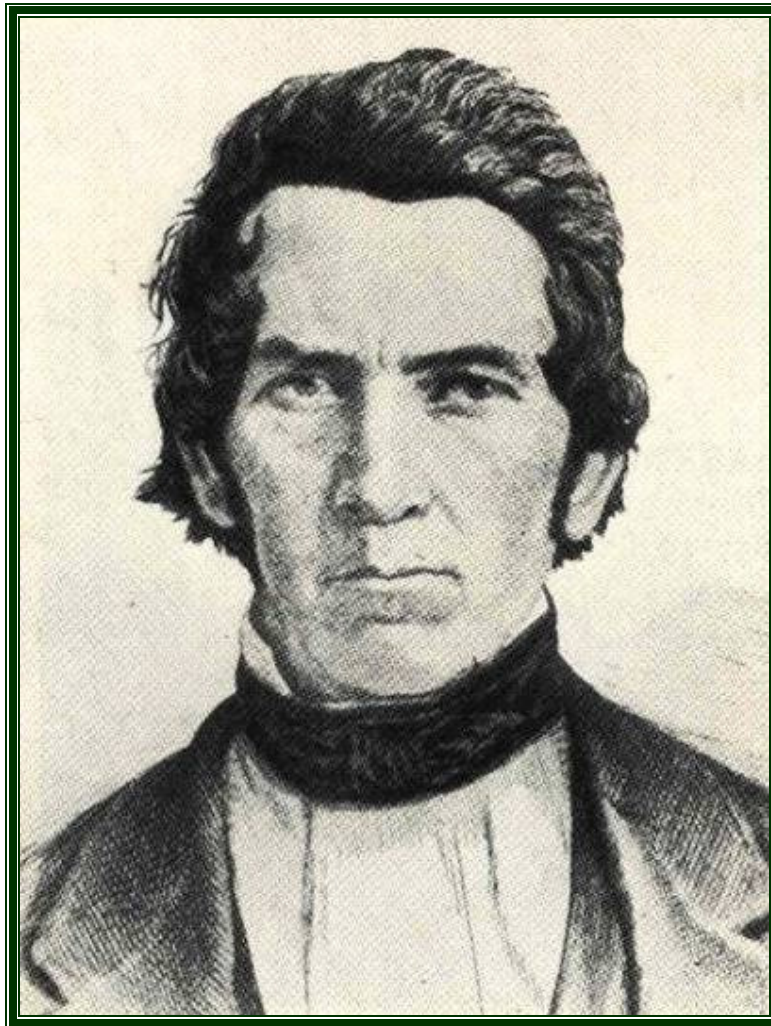


A A A A The Frame
 B The Pan or Basin
 C The Slider
 D D D The Siphon pipe
 E The Sic which admits
 water into the Pan

F F F F The leading pipe
 G & H . The Box & Lock for regulating the
 velocity of water which comes to the Pan
 I . The Lock which admits water into the Pan
 O . The Handle which works the Slider c and
 the lock I by means of the bent lever K, L, M
 whose pivots move in the upright N, N.



THOMAS DAVENPORT
1802-1851



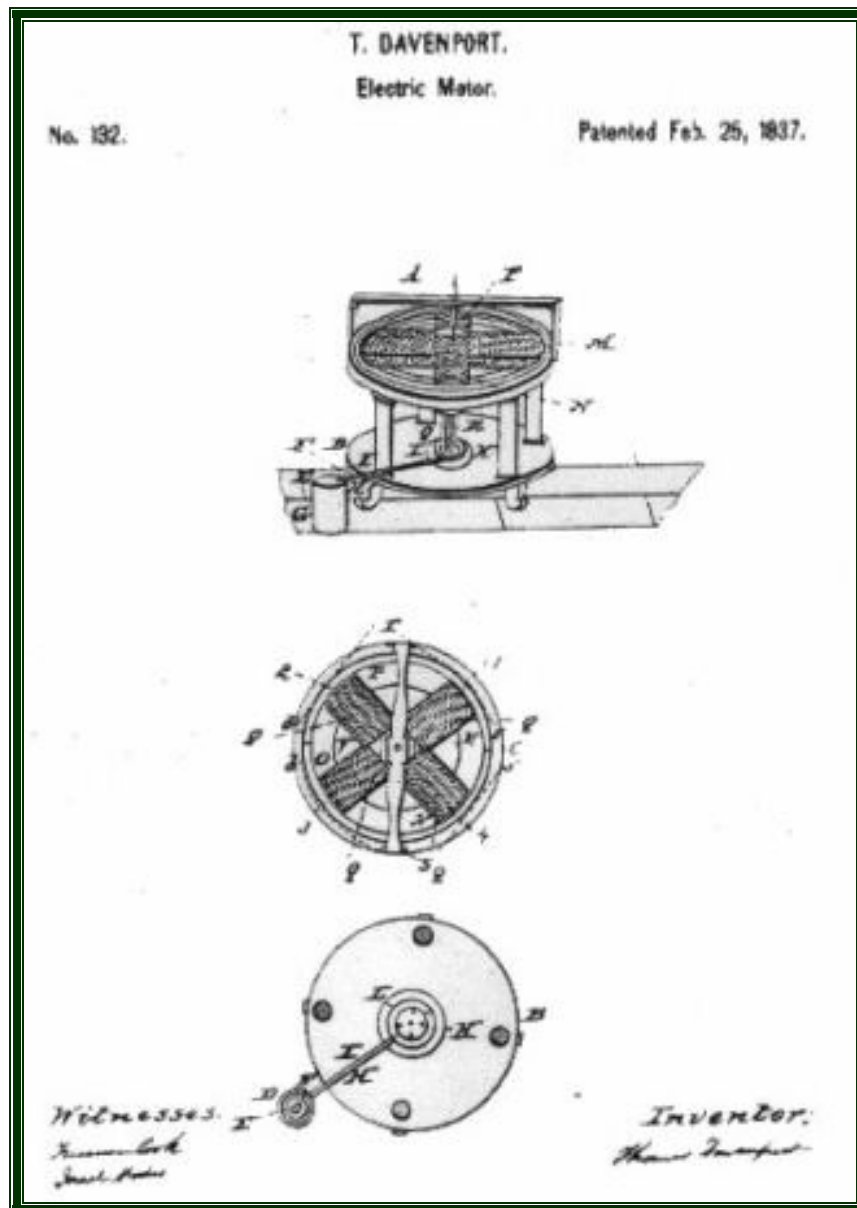
Produced a Practical Electric Motor in 1837

Thomas DAVENPORT

1802-1851

American engineer from Vermont. Produced the first electric motor capable of practical application* (USP: 1837). He put two 50 lb motors of his own design to work the same year, one for drilling holes....in iron and steel, the other for turning hardwood. Each incorporated an electromagnet and operated at a speed of 450 rpm.” Later (1839) he built a larger motor to drive a rotary printing press.

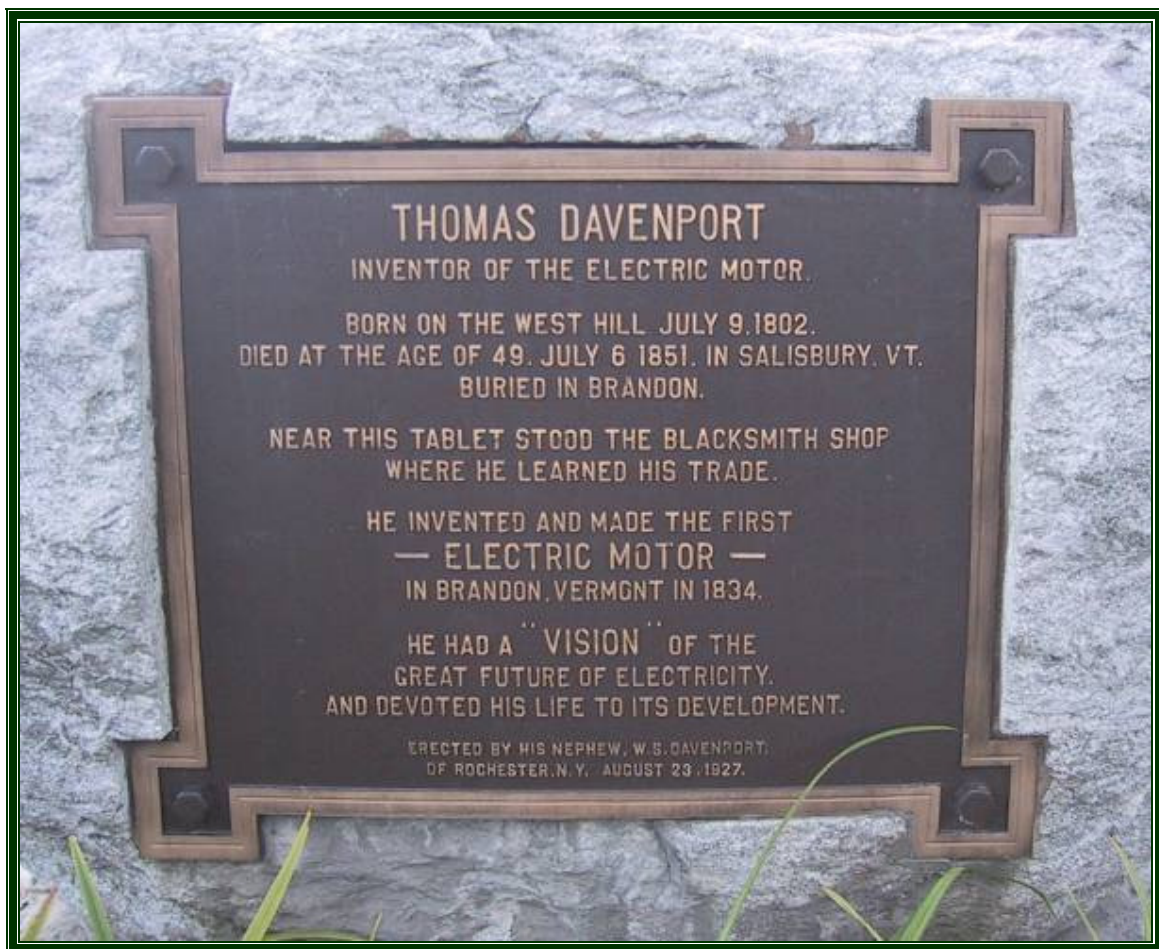
(Mini-biography from CIBSE Heritage Group Records)



Davenport Patent of 1837



Davenport's Blacksmith Shop



Tablet Commemorating Thomas Davenport