SUSSEX INDUSTRIAL HISTORY

SALTDEAN LIDO BRIGHTON

Eastbourne Buses – Sussex Lidos – The Sea House Hotel
Bishopstone Tide Mill –Mountfield Gypsum – Uckfield Workhouse
Brighton Oven – Medieval Water Mills

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SUSSEX INDUSTRIAL HISTORY

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EASTBOURNE'S FIRST MOTOR OMNIBUSES

with a preliminary note on John Kempe Brydges, Borough Electrical Engineer, 1900-1939, and first manager of the motor bus department, 1903-4

John Norris

Eastbourne was one of the first towns in the country to have a public electricity supply, the Eastbourne Electric Light Co. commencing supply in September 1882, just months after similar companies at Brighton and Hastings. All three companies were established by the prominent electrical pioneer and entrepreneur Robert Hammond. The first Engineer & Manager at Eastbourne was H.M. Sayers, followed c.1885 by H.W. Kolle.

On 1st January 1900 Eastbourne Corporation took over the private company and appointed as Engineer of the Corporation's Electric Light Undertaking John Kempe Brydges (Fig. 1), who was to hold the position for almost 40 years, during which time the number of consumers increased from under 500 to 21,000 and the electricity supplied from approx. 0.4 million Units (kWh) in 1900 to approx. 38 million in 1939.

Fig. 1 John Kempe Brydges, M.I.E.E., A.K.C., Eastbourne Borough Electrical Engineer, 1900-1939 (Milne Electrical Collection)

Born in 1868, the son of Edward Thomas Brydges, one time Town Clerk of Cheltenham, John Kempe Brydges was educated at Cheltenham College and Kings College London. At the age of 20 he crossed to the USA, spending several years in posts of increasing responsibility with electrical manufacturers and supply undertakings. He returned to England in 1896, becoming City Electrical Engineer to the Corporation of Wakefield in May 1897 and taking up his duties at Eastbourne on 1st January 1900.

Among the archives held in the library of Seeboard's Milne Electrical Collection at Amberley Museum is the leather-bound 'Electrical Engineers Report Book' in which Mr. Brydges reported fortnightly to the Corporation's Electric Light Committee. Unexpectedly, interesting information on Eastbourne's first motor buses is to be found in this book for it transpires that in addition to his electrical duties Mr. Brydges was in charge of the fledgling Motor Bus Department when it started in 1903. All the references to bus matters in his report book are reproduced below.

Mr. Brydges wrote in a good clear hand and there has been no difficulty in deciphering his reports. Subject only to accidental typing and reading errors, the following is a faithful copy as regards content, spelling, paragraphing, underlining, use of capital letters, and punctuation. The only exception is the introduction of a measure of consistency in abbreviations, by standardising on one of the various alternatives he used.

"Gentlemen,

22nd April 1902

Public Service Motor Cars

The Automobile Club are now holding their International Motor Car Exhibition in London during this week at which some of the firms with whom I have been in communication regarding Motor Cars for a Public Service are exhibiting.

14th April 1903

Motor Omnibuses.

Herewith a letter from Milnes Daimler Ltd in which they state that they are only able to supply a 16 seated vehicle for trial, & this will be ready for delivery on the 16th inst, & I suggest that as it will probably be sent down over the road from London that I should travel with it in order to see how it behaves on the journey.

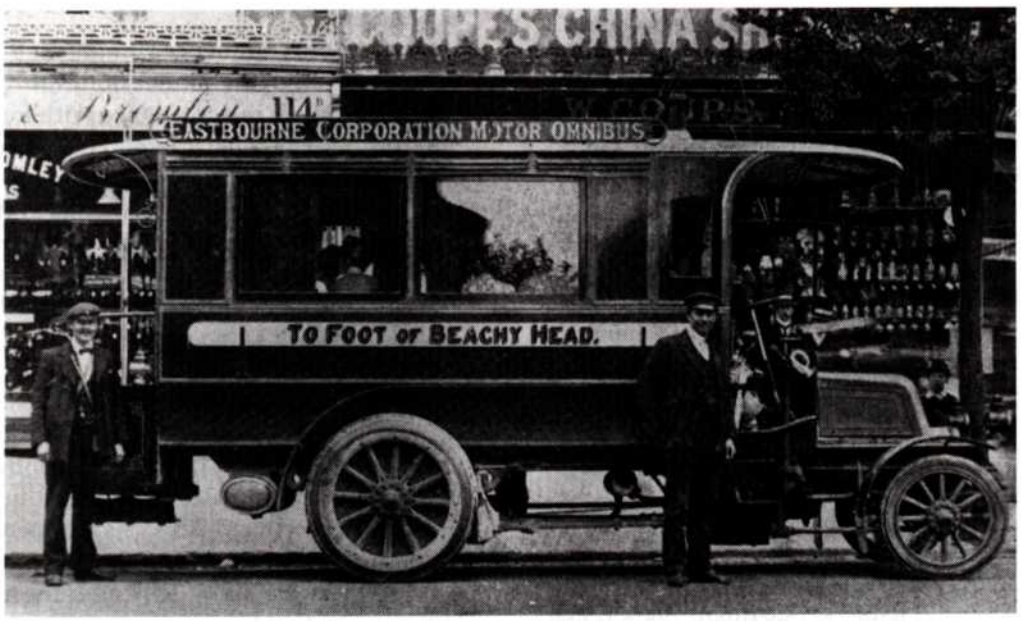
28th April 1903.

Motor Omnibuses.

I beg to submit a letter received from The Stirling Motor Carriages Ltd in reference to the charge for a trial bus.

I shall be glad to receive your instructions regarding:-

A. As to whether the Milnes Daimler Trial 'Bus is to continue to run as at present?
B. Is it to run on the same route?
C. The appointment of driver?
D. Licensing of the Conductor?



One of the first Milnes-Daimler motor buses, delivered to Eastbourne Corporation in 1903. It cost £750 and accommodated fourteen passengers. (Alan Lambert Collection)

E. Cleaning of the 'Bus?
F. The purchase of petrol? As regards this I have an estimate from the Anglo American Oil Cº; & who are the importers of Pratt's Motor Spirit, for the supply of petrol @ 8¾d per gallon, F.O.R. London, in one ton lots, which will amount to 216 gallons. The carriage is at the rate of 19/7 per ton, or approximately one penny per gallon.
G. Storage & License to keep the above?
H. Stabling of car? The old disused stable behind the fitter's cottage, which has a clear floor space of 55' x 35' when the sheds are pulled down, could well be adapted to accomodate (sic) 6 cars with room for small stores.

12th May 1903

Damage to 'Bus.

At 4.10 P.M. on the 8th inst: a small boy broke one of the windows of the motor 'bus by throwing a stone at it. He was in Company with two other boys. The conductor caught one of them who stated that the boy who threw the stone is named Fred: Jones, whose father is an ostler at Westons'. I interviewed him on Saturday & he stated that he believed it was one of the other boys named Hollibone who threw the stone which broke the window although they all appear to have been throwing stones. I also interviewed the mother of the Hollibone boys who stated that she believed it was Fred Jones who threw the stone. Jones senior, however, enquired what the cost of the glass would be & also stated that he had chastised his son.

New ' Bus

I understand from the makers that the 2nd 'Bus will be delivered in from 2 to 3 weeks. I shall be glad to receive instructions.
(a) Stabling for this? There is no room for it in the Corporation Yard
(b) Route it is to run on?
(c) Fares that are to be charged?
(d) Appointment of driver & conductor?

9th June 1903

Motor Buses.

No:1 Bus has run on the Meads route from the 18th April to the 1st June inclusive, 38 days, when it was taken off for overhaul, & replaced by No: 2 Bus. During this time it has run 2361 miles & carried 16521 passengers & earned £169:8:1. The consumption of Petrol during this time has been 317 gallons, costing £13-4-2 & 15 galls of oil costing 35/-.

Trouble has been experienced with the tyres. The rear driving wheel tyre came off on the 15th May after having run 1486 miles & the other one failed after running 2166 miles. The Goodyear Tyre Cº, however, are now prepared to guarantee their tyres for 5000 miles & will charge us pro rata for the number of miles use that we have had out of the damaged tyres.

No: 2 Bus was run on the Hampden Park route the day after it arrived here, Whitmonday. It made 15 complete trips, starting from Victoria Place, & carried 370 passengers, the earnings being £8:0:5.

The gearing of No: 1 bus proved to have worn very badly & it has been inspected by Messrs Milnes-Daimler's representative. It will probably be ready to start running on the Seaside & Upperton Route tomorrow morning.

Spare parts. I have sent an order for several spare

parts that are urgently required.

Alteration to Step. Two estimates herewith submitted from Mr. J. Guy & Mr. G. Saxon for altering the entrance to the buses from the side to the back & fix seating accomodation for two on each side. The entrance will then be similar to that on the "Durkopp" bus which was here for trial two weeks ago.

Motor Caps. Herewith submitted samples of leather motor caps for the Bus Drivers & Conductors.

Durkopp 'Bus. Herewith submitted letters from the Motor Car Emporium Ltd asking for payment of £10 for expenses of trial as agreed, also guarantees regarding the tyres & machinery.

23rd June 1903.

Motor Buses.

Both buses have run daily since reported at the last meeting, No: 1 on the Seaside & Upperton Route & No: 2 on the Meads route, the mileage, number of passengers & earnings being respectively 788½ & 658 miles, passengers 7470 & 4555, earnings £42-7-9 & £42-17-6.

8 trips have been lost by number 1 & No: 2 owing to the necessity of small adjustments.

On the 12th inst: No: 2 Bus came into collision with Mrs Jump's brougham when turning to avoid a cart. A claim for damages has been made.

For the past two Saturdays I have taken No: 2 bus off the Meads Route on the last journey, & put it on, together with No: 1, running extra journeys on the Seaside & Upperton route with the result that the takings have averaged 6/- per round trip against 3/- on the last trip on the Meads Route, the result being that the revenue has been increased by £2-10-0 on that day.

11th July 1903.

Motor Buses.

Since the last meeting of the Committee Nº 1 bus has run 1390½ miles & carried 12887 passengers, on the Seaside Route, or a total of 4338 miles.

No: 2 'Bus on the Meads Route has run 1121 miles & carried 9245 passengers & run a total of 2237½ miles.

On the ult. the weather being very warm the top of the No: 2 bus was removed for the afternoon but as it did not look well, although the running of the vehicle was very much lighter, the top was replaced next day & all of the windows taken out. The removal of the windows has been much appreciated though on some days it has been too cold & as they are screwed in it is not possible to remove or replace them during the day.

On the 8th inst: a trial was made with only the two front windows in place so that we now have a combination of open & closed vehicle.

In response to instructions received from the Committee I have given orders for rainproof curtains which can be drawn when necessary to be fixed at a cost of £2 per vehicle, one to be fitted first as an experiment.

Both buses commence running at 9 am & continue running through the dinner hour till 10 P.M. or 13 hours per day & in accordance with instructions from the Committee I have appointed another driver & conductor.

The head driver & fitter attends at the yard 2 hours before the buses start to make any necessary adjustments or small repairs. He also takes the relief journeys for the regular drivers at meal times between 12 & 2 o'clock & again from 5 to 10 P.M. excepting one day per week.

The head conductor's time is the same as head drivers'.

Conductors: The rate of wage for conductors was fixed by the Committee at 18/- although the conductor first put on has been paid 22/-. As it appears desirable to have one head conductor, who will be useful on the relief to assist the fitter, look after the acetylene & oil lamps & see that the interiors of the cars are properly cleaned, I would suggest that he be paid 20/- instead of 22/- as formerly.

Fitter Driver. Geo: Harvey has been paid overtime for heavy repairs necessitating work all day on Sundays, but this will not be required when we have a spare bus, which is absolutely necessary, as in the case of a serious breakdown, in which an immediate repair could not be made, there would be several men at a standstill & the service would be stopped.

Accident. As No: 2 bus was turning out of Ivy Terrace into Gildridge (sic) Road on the 2nd inst, a boy on a bicycle ran into the bus but the bicycle only was damaged as the boy dropped off behind in order to save himself. The bicycle belonged to Chas. Stutchbury Junior, son of Chas Stutchbury, Manager of Hudson Bros, 62 Terminus Road. The bicycle however at the time was ridden by Walter Platt of Norfolk Villa, Hyde Road, a boy of 12 years of age. Chas Stutchbury's father informs me that he gave Jury £3:10:0 for the bicycle 3 months ago, & he wishes to know if the Committee will give something towards a new bicycle, as the bus having passed over it, it was damaged beyond repair. It appears however that there was a space of 3'6" between the kerb & the offside of the bus at the time, which is not denied by Charles Stutchbury. The boy apparently lost his head & I believe it was entirely his fault. We have a witness who will bear witness to this effect. I understand that Mr Stutchbury & his son have now left the Country & gone to America.

The Surveyor has applied on behalf of Gardner, the Engineer of the Air Compressing Station, requesting a free pass on the Motor Buses from Roselands as far as the Leaf Hall. I presume that if this is given there will be other similar applications.

21st July 1903.

Motor Bus.

On the 13th inst: the Sub-Committee visited the Works of Messrs Clarksons Ltd at Chelmsford for the purpose of examining the construction & the materials of the Clarkson Steam Omnibus, ~~for which they have an order to supply three for Public Service Work in Torquay~~. The Committee & the Council have already had the opportunity of making a trial of a small omnibus built by this firm & as it has now run some 8000 miles it was a more satisfactory trial than it would have been had the vehicle been absolutely new. At the Works the Committee were first of all shown the stores, in which there was a very good supply of every finished & unfinished part that is used in the construction of the vehicle, & they were shown how each one of these parts were put together & the excellence of the workmanship & fit. All the working parts are very strong with ample bearing surface, & as the whole of the engine is completely enclosed in an oil bath consequently the wear is very small & very little lubricating oil is used as there is practically no waste. The tools in the machine shop are all of the very latest pattern & additional tools are being installed to reduce as far as possible hand labour & rendering each part absolutely interchangeable. The Committee saw 8 or 9 frames in the process of erection, amongst them those for the Torquay buses, the others being for steam lorries, of which the firm have turned out a considerable number. The cost of a bus to accomodate 14 passengers with a similar body & upholstered the same as that of the Milnes-Daimler buses would be £625, or with a painted body finished with 14 coats paint & better class of upholstery, the same as for Torquay, £648. A bus provided with open seats of a char-a-bang (sic) style would be £582. Delivery of one vehicle could be made in 12 weeks. If an order was given for three at a time there would be a reduction of £22 each. The tyres that are recommended are Turner Twin Tyres but there is no guarantee with them.

Tyres. The particulars regarding the tyres on the Daimler omnibuses are as follows:-
No 1 bus put into service on the 18th April was equipped with 4" "Goodyear tyres" on the driving wheels & 3½" on the front.
No 2 bus was equipped with 4" "Kelly" tyres on the driving wheels & 3½" on the front, although when the order was given by the Committee to Mr Burford, Messrs Milnes-Daimler's representative, he was informed that the bus was to be identical with the one already supplied with the exception of the tyres, which are to be 5". The spare set of wheels was also ordered to be equipped with 5" tyres & these were duly received.

Of the 4" "Goodyear" tyres on No: 1 bus one ran for 1305 miles & the other for 1968 miles before being destroyed or an average of 1636½ miles at a cost of £21 or 3d per car mile. These two tyres have been replaced at a cost of £42 & are now running on No: 2 bus from which the Kelly tyres have been removed after running 1616 & 2258 respectively an average of 1937 miles each & at a cost of 2.6d per car mile. The spare wheels with the 5" tyres have been used on No: 1 bus to replace the first pair of Goodyear tyres & the new Goodyear tyres which have been supplied in place of the faulty Kelly tyres are now on No 2 bus, consequently we have no spare wheels ready for use. The total cost of tyres therefore up to date has been as follows:

2 – 4" "Goodyear" £42
1 – 4" "Goodrich" £21
2 – 4" "Goodyear" £42

The total number of miles these tyres have run is 8326 or an average of 1665 or at a cost of 3d per car mile. Assuming that the 4" Goodyears' at present on the No. 2 bus which have up to date run 2204 miles will last the same length of time add £27, or 3d per car mile.

There now remains the 5" tyres to be considered. Although these have now run 2215 miles & are certainly wearing better than the 4" have done, nevertheless they show signs of deterioration & will probably not exceed 4000 miles, therefore add for this to date £38 or 2d per car mile or total for tyres of £170.

As regards the front wheels, although these have given no trouble so far, having run 4800 miles on No 1 bus & 3000 No 2, they are also showing signs of wear & will probably have to be replaced, though it is impossible to say when. The cost of these tyres is £10/5/- each, & allowing a life of 7000 miles, the cost per car mile for these is about ⅓d.

A letter from the Goodyear Tyre Co herewith submitted from which it would appear that the depreciation of the tyres is owing to the fact that they were not of sufficient size in the first instance to carry the weight, as they now state that the rear wheels should be equipped with 6" tyres & it would appear that Messrs Milnes-Daimler are responsible for the fact that the proper size of tyres were not fitted in the first instance.

When in London last Tuesday I called on Mr Burford of Messrs Milnes-Daimler, who again stated that they do not accept any responsibility of the tyres. In view of the facts above stated they would appear to be liable. Mr Burford now recommends the fitting of a Goodyear Twin Tyre, with which they will give a three months guarantee, which in our case would represent a mileage of 7000 miles.

28th July 1903

Motor Buses.

Since the last meeting No: 1 Bus ran regularly until Friday evening, when, owing to the water circulating pump breaking down, the last trip was lost.
A new pump was wired for immediately but did not arrive till Saturday afternoon, & then owing to it being

of a different pattern it took three hours to fit & the bus could not be put into service until 7.25 P.M.
No: 2 bus. On the 24th inst this took the private party from Ratton to Firle & back, & returned, without any accident, early on Saturday morning. On Monday 27th inst: at 6.30 P.M. the nearside 4" Goodyear tyre failed & the bus has had to be taken off the road in consequence of the impossibility of getting new tyres to the reserve wheels in time, consequently only one bus is now running, & the other one is being overhauled. This tyre has run 2185 miles.
Spare Wheels. The tender of the Peter Union Tyre Cº for new 5½" tyres be fitted to the spare wheels, has been accepted by the Chairman & Deputy Chairman & the order placed, but delivery cannot be promised in less than 10 days.
Durkopp 'Bus. I have made enquiries with a view to hiring this, but I have received a telegram today stating that the Syndicate are not prepared to do this as it would make the car second hand, but to prove the advantage of the Durkopp system they offer it for immediate delivery for £660 & will obtain the guarantee with the Peters' tyres, with which it is equipped. The price originally quoted for this bus was £705.

Clerk.
My Chief Clerk, F. Wise, now attends at the Yard every morning one hour earlier than the usual office hours, in order to take reports & data concerning the previous day's running of these buses & also inspect the conditions of the cars before being turned out. He also puts in odd time during the week in the evenings, & I suggest that this additional time is worth recognition.

11th August 1903.

Motor Buses.
"Durkopp 'Bus". I have notified the Motor Car Emporium Ltd that the Committee have decided not to purchase this 'bus, but I have not yet received a reply from (them) stating whether or no they agree to accept £10 only for the hire of this bus, instead of £15 as previously arranged, as it was only on the road for two days & two half days, less the value of Petrol & oil used, £3:8:8
No: 1 Bus, on the Archery & Cemetery Route was taken off at 3.30 P.M. on the 4th inst owing to the collapse of the 2nd hand repaired "Goodrich" tyre, which had been loaned to us. We have procured another second hand tyre from Messrs Milnes-Daimler, which, I believe will keep us going until the spare wheels equipped with the Peter's tyres are delivered.
No: 2 bus. The off side 5" Goodyear tyre on this bus collapsed at 3 P.M. on the 10th inst., consequently the bus is now in dock again. I have written Messrs Milnes-Daimler asking if they have another wheel with 2nd hand tyre that they can loan us, but so far I have received no reply from them, & until this, or the new 5½" Peter's tyres, which are daily expected, arrive, No 2 Bus will be off the road. No 1 Bus has been transferred to the Meads Route, consequently we have no bus on the Archery & Seaside Route.
In accordance with the instructions of the Committee, I have placed an order with the Peter's Tyre Cº for a second set of tyres.

25th August 1903.

Motor Buses.
The driving wheel fitted with the 5½" Peter's tyres, which were ordered on the 28th ult. have come to hand this afternoon & if the wheels fit No: 2 'Bus it will be on the road again today.

14th September 1903.

Motor Buses.
The three 'buses have been running regularly since *[corrected in pencil to upto]* midday on the 12th inst., on which day No 1 'bus which had been in dock for repair of the gear box was started running again.

Tyres.
Tyres are now fitted on the wheels of the various 'buses as follows:

No. of bus	Route	Driving wheels		Front wheels
		nearside	offside	
1	Archery & Cemetery	Hopkins	Kelly 4"	Goodyear 4"
2	Meads	Peters 5½"	Peters 5½"	Hopkins
3	Archery & Tally Ho	Goodyear Twin 4	Goodyear Twin 4"	Goodyear 5"

The spare pair of driving wheels are being fitted with 5½" Peter's tyres, but I cannot get any promise of time of delivery. The spare front wheels (which) have been on order since 26th August are to be fitted with 4" Goodyear tyres, with these also, we cannot obtain a promise of a specified date for delivery.

Stopping Places.
I have had a white band painted round the arc lamp posts at the stopping places, and as soon as the enamelled plates come to hand they will be attached immediately above these marks.
The stopping places on the Tally. Ho route have not yet been fixed by the Committee, but I recommend the additional "if required" stoppages:-
The Lamb, Moat Croft Road, Corner of Upperton & Enys roads.

Wages of Conductors.
As the conductors work on the motor omnibuses proves to be so very much more arduous than it was on horse drawn 'buses, and also in view of the fact that there is no reason why a conductor on a Motor

Omnibus should be paid any less wages than a conductor on an electric tram car I recommend that the rate of pay to these men should be re-considered.

Office Staff.

Before the Motor 'Bus work was taken in hand by my department the time of my two Clerks was completely occupied, overtime work having to be put in occasionally in order to keep up with the work; whereas, owing to the increase of work occasioned by the Motor 'Bus work additional assistance is now required.

Replacement of Faulty Parts.

There has been undue wear with two bottom shafts and bearings in the gearboxes which I consider is owing to faulty material, but although Messrs. Milnes-Daimler have replaced one of them without charge, they have refused to do so in the second case, giving as an excuse that the 'Buses have been overloaded whereas the same size of machinery is in use in the Hastings' Buses which carried the weight of 14 passengers, and the top seats more than our 'Buses.

Goodyear Tyres.

I submit letter from Goodyear Tyre Co. asking for payment for the two 4" tyres supplied to replace those fitted to the first 'bus which collapsed after running 200 miles owing to too small a size tyre being ordered by Messrs Milnes-Daimler.

29th September 1903.

Motor 'Bus Spares.

As the third & fourth speed wheels in the gear boxes are the parts that appear to suffer the most wear & are very expensive if purchased from Milnes-Daimler, I have procured a quotation for six of these as samples at 18/2 & 14/10 each for the fourth & third top speed rings, as against 45/- & 36/- charged by Milnes-Daimler, & for another spare wheel used on the front of the engine 14/3 for four as against 24/- quoted by Milnes-Daimler. I presume that other spare parts, as far as they can be obtained from other makers, will be correspondingly cheaper.

Peters Tyres.

I submit letter from the English Agents for the Peters tyres in reference to the fitting.

Fitter Craddock.

On the 9th June the Committee sanctioned the setting aside of a portion of the garden at Roselands for the use of George Craddock, fitter, but after a long delay, last week the Head Gardener reported to Mr Bowe that he cannot find a piece of garden for the purpose.

13th October 1903.

Motor 'Bus Tyres.

I beg to submit circulars from R.S. Wood & Co describing their pneumatic wheel & also from Messrs E.N. Henwood describing his rubber cushion hub.

10th November 1903.

Motor Bus tyres.

Two Peters tyres have failed on the driving wheels of bus No: 1, one having run for days & miles & the other one days & miles. *[spaces have been left but figures are missing]*. The first tyre has been replaced by the Agents & the second one is now in their hands & I presume these will be replaced free of charge although we have had some use out of them. They may have been damaged owing to the application of the tyre brakes when the bus is moving in violation of rule No:8 of the drivers, which instructs them that "these brakes must only be used in the case of emergency or for blocking the wheels when the bus is standing".

Extra stopping place, Meads Route. *[this paragraph has been heavily crossed out, in pencil]* As, I understand, there are always a number of people desirous of getting off the bus at Carlisle Rd on the outward journey, I think it would be desirable to have another stopping place if required fixed at this point. *[Pencilled Note:]* No. 2 'Bus is now in the engine room being overhauled.

24th November 1903.

Steam Bus.

I beg to submit letter received from Clarkson's Ltd regarding the first Torquay bus which has proved to be very successful.

Peters Tyres.

I regret to report that another of these tyres, making the third, came off the wheel on the 20th inst:, & this & the wheel have been returned to the English Agents.

29th December 1903.

Clarkson Steam 'Bus.

I beg to submit drawing of top seated Clarkson steam motor omnibus which they can supply at £ *[no figure given]*

12th January 1904.

Motor Buses.

I beg to submit letters received reporting favourably as to the Clarkson Steam 'Bus now running at Torquay.

Tyres.

The Sirdar Rubber Company, Manufacturers of the Royal Buffer Tyres, have now come forward with a businesslike proposition to supply us with twin tyres for our 'buses. They offer to supply these at a cost of £100 for the set per 10,000 miles, which works out as 2 2/5d per car mile, which, I believe, is considerably lower that (sic) the cost has been hitherto with any kind of tyre. In addition to this they are prepared to keep our spare set of wheels tyred ready for use, their only condition being that spoon brakes, ie, brakes on the rubber tyres, are to not be used, & if now provided

are to be removed, & a weekly record of miles run is to be sent to the firm every week. If any advertisements should be allowed at any time in the 'buses, they are to be permitted to have a small space, free of charge, on which they can write "This 'bus is fitted with Royal Buffer Tyres". Thirdly, the wheels are to be sent to their Works, carriage paid, when they have to be fitted with new tyres.

There is no doubt all reports one hears of the Buffer Tyres are favourable & these tyres have succeeded where others have failed.

Again, there is a great advantage in having tyres that are actually made in England & fitted at the Works in London.

The only cost in addition to the rate quoted for 10,000 miles would be the initial cost of wider wooden rims or felloes, to the wheels on Nos 1 & 2 'Buses, which have single tyres on them at present, but this would not be a very large sum. There would be no charge for fitting the tyres on Nos. 3 & 4 'buses. The present 'buses are now fitted with Peter's single tyres which have a 10,000 mile guarantee, & Goodyear twin tyres with which there is no guarantee. In both cases the tyres are made abroad & there is considerable delay in getting them fitted as the manufacturers only have agents in London. If you approve of this offer, which, I understand, is the same one that has been made to the Hastings Company, it would be advisable, if it is not too late, to have the Clarkson 'Bus fitted with these tyres.

It must not be forgotten also that single tyres, especially when they wear down to a broad flat surface, give trouble from side slipping. I understand there has been trouble from this cause with the Turner tyres as fitted to the Torquay 'bus although these are of the twin type.

20th January 1904.

Clarkson 'Bus.

In accordance with your instructions I visited the works of Messrs Clarkson's Ltd at Chelmsford on Friday last. The Body of our steam 'bus is well in hand, the roof has to be put on & the seats & back portion finished, but the Coachbuilders stated that it would be completed by the 28th inst. The erection of the engine & gear had just been started all the parts being completed, & the springs & rear axle were delivered at the Works that afternoon. I was shown a report of fuel consumed by the 'bus which has been running at Torquay for 3000 miles. This works out at 90 galls of paraffin oil per week & 1 pint of lubricating oil.

As regards the tyres, Messrs Clarkson's have a representative at Torquay taking measurements of the wear that has taken place on the Turner tyres during the time the 'bus has been running, & they are going to let us know the actual amount of wear during this time, though in view of the trouble they have had with side slipping, it is evident that the twin type of tyre of this make does not prevent it. In this respect the Sirdar Rubber Company absolutely guarantee their tyres against skidding.

In reference to delivery Messrs Clarkson's can deliver one or two single deck 'buses by July 26th, but the top seated 'buses would be one month later. They state that these are definite dates, but they regret that they cannot accept the penalty clause.

9th February 1904.

Steam 'Bus Trial. The chassis will be ready for the preliminary trials on Friday next.

Motor Car Show. The motor car show of the Society of Motor Manufacturers & Traders takes place this year at the Crystal Palace from February 12th to 24th at which probably Public Service Cars will be exhibited.

Tyres. A set of twin Buffer Tyres have been fitted to one of the wheels of No. 3 bus in lieu of the twin Goodyear tyres which were originally fitted and have run 8282 miles.

23rd February 1904.

Steam 'Bus.

I submit letter of the 17th inst: from Messrs Clarkson's stating that they would require a few days longer to make the necessary adjustments shown at the test on Sunday the 14th inst in consequence of altering the positioning of the engine, & I have received a wire from them today stating that the "Car will leave for Eastbourne next Monday".

8th March 1904.

Motor 'Buses.

I beg to submit letters from Milnes-Daimler in reference to the alterations to the specification which the Committee desire made. It will be observed that there is a disagreement regarding the type of windows & the material of which the mudguards are to be made.

Tyres. Milnes Daimler request instructions as the type of tyres to be fitted to the two new 'buses & I submit a quotation from the Sirdar Rubber Company for a set of triple tyres on the rear wheels & twin tyres on the front, which considering the prices quoted & the uncertainty of the wear of other tyres & the high price quoted for same, I think it would be advisable to accept their offer.

22nd March 1904.

Motor Buses.

On Thursday last, as instructed by the Committee, I interviewed Mr Burford of Milnes-Daimler regarding the specification for the new 'buses.

I beg to report that as regards the gears, brakes & hand rails these are all agreed upon. Mr Burford also agreed to supply pressed steel mudguards, which in his former letter he stated was impossible & he further did not advise the use of same.

Lighting. As the present acetylene lamps are not satisfactory I made arrangements for a trial of a self contained lamp but this has not yet come to hand.
Windows. As regards the windows on the side of the cars these are, as the Committee decided, to be three in number, the central one to raise & lower, but the whole of the window will not drop clear owing to the construction of the body, & I beg to submit drawings showing what they will look like on the two types of 'buses.
Tyres. Tyres will be a saving of £37 if we order the 'buses without tyres, & have the wheels fitted ourselves, & I recommend that this be done.

12th April 1904.

Motor 'Bus Tools.

The lathe required for the Motor Bus Department is one with 6"centre, & as there are times when large work has to be undertaken which cannot be turned by a lathe of this size, & as this is especially the case as regards the Electricity Dept, I suggest that a lathe with larger centres, say an 8½" or 9", be obtained, the Electricity Department paying the difference in price, amounting to about £18. The 'Bus Department can then have our present lathe. This cannot be used, however, until the new 'Bus Shed is built, as a motor would be required to drive it, there being no hand power unless a temporary hand wheel be provided.
Motor 'Bus Painting. No. 1 'Bus has now been on the road nearly a year therefore the body should be varnished & the frame painted & varnished, & the other 'buses also require similar attention.

26th April 1904.

Motor 'Buses

Steam 'Bus Spare Boiler. Messrs Clarksons write that the boiler that was scorched has been repaired at a cost of £5 & is now practically as good as new. They wish to know if we desire to have it returned or whether they shall take it into stock & give us credit for it? In the latter case they can allow us £33.

Owing to a projecting sunblind in Grove Road some damage has been done to the ventilating windows on the near side of the 'bus.
Crossings. There are several crossings in the town which are very much below the level of the road, & every time the motor 'buses go over them the shock to the machinery is very severe. This is particularly noticeable with the top deck bus & may lead to a serious accident if a person should be thrown off. One of the worst crossings is opposite the Burlington Hotel & another in Terminus Road at the junction of Bolton Road. There is also a very soft place in the roadway opposite the Gildridge Hotel where the 'buses pull up.
Painting 'Bus. No 2 Bus which broke down on the 25th March, & for which we have not been able to secure the spare parts has been varnished & painted on the outside by Mr S. Guy at a cost of £6:15:0.

11th October 1904.

Motor 'Bus Shed.

When moving three spare arc lamp columns without authority Mr Joseph Martin's men broke the ladder arms on two of the posts & also placed the brackets on the damp soil of the flower beds, & though I have written him in the matter he denies all liability of the damage & also will not alter the position of the brackets.

[Mr. Brydges' first reference to "Motor Bus Department" is in April 1904 and it seems that by January 1905 the motor bus department had become a fully established entity with its own manager. Its independence from Mr. Brydges soon becomes clear!]

10th January 1905.

Motor 'Bus Passes

Of the motor 'bus passes that were issued to this Department the withdrawal of the three affecting my chief clerk, F.Wise, correspondence clerk, A.L.Cotgreave & meter inspector, A.Brown, makes it rather a difficult matter for them to get to & from the Works, as the Clerks live in the centre of the town & it would be hard on them now to be obliged to pay their fares 4 times a day @ 2d each journey, & it is not possible to allow them sufficient time in the middle of the day to walk both ways this alone occupying one hour.

As regards the meter inspector, the Committee have provided him with a bicycle, but he is not able to carry meters between the town & the Works, which is constantly necessary, & he has hitherto used the 'bus. In view of the expert advice which is still being given to the 'Bus Department by the Electricity Department it appears to me to be only fair that some acknowledgement should be made of this by the Motor 'Bus Committee, & as these three employees travel only during times when the 'buses are practically empty (on the early morning journey there is seldom any other passenger on the car), they are not occupying room which can be filled up by paying passengers. As regards the withdrawal of my own personal pass, this does not much affect me as I never made much use of the 'buses, & that formerly used by the Works messenger can now be paid for out of one of the ticket books when required.

[A little just retaliation by the Electricity Department evidently seemed in order:-]

11th April 1905

Motor 'Bus Department

Instructions are requested as to the charges to be made to the Motor 'Bus Department for the use of the lathe & tools in the machine shop at the Works, & for the use of the conveniences by the whole of the Motor 'Bus Staff, 30 in number, & the proportion of the charge for the use of our telephone. The machine shop has been

used for many months past & the conveniences since the 1st March, when the new 'bus shed was occupied.

[Perhaps also just a touch of pique?]

9th January 1906

Motor 'Bus Shed

I have to draw the Committee's attention to the proposed addition to the Motor 'Bus Shed as the erection of this will very seriously interfere with the light in the General Office & fitting shop. It will also dwarf the side elevation of the Electricity Works from the entrance road, & it will very greatly depreciate the value of Roselands Lodge as a place of residence.

12th June 1906

Motor 'Bus Department

Through the Engineer a request had been made for permission to use the fitting shop at the Electricity Works during the alterations to the 'Bus Shed, & instructions are requested thereon.

[But all was not lost!]

28th August 1906

Motor Omnibus Dept.

In accordance with the request of the Chairman of the Motor 'Bus Committee, conveying the resolution of that Committee, I have taken charge of the Motor 'Bus Department between the time when the Engineer, Mr. Griffiths, left and the arrival of the newly appointed Manager, Mr Elison.

[One final reference to the Bus Department involved Mr. Brydges in his normal role as Borough Electrical Engineer:-]

Electric Lighting, Motor 'Bus Shed

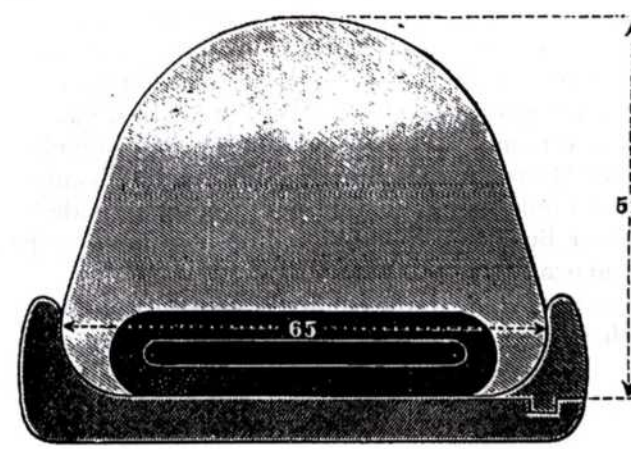
The Motor 'Bus Committee have desired me to carry out the wiring in the new extension of the Motor 'Bus Shed, and I propose to make a trial with Flame Arc Lamps for this purpose."

APPENDIX

The following item from the Electrical Times 7 May 1903 about the use of the 'Peter' tyre on electric vehicles describes the salient features of this type of tyre.

A TYRE FOR HEAVY CARS

At the recent Automobile Show at the Agricultural Hall the Peter Union Tyre Co. of Frankfurt-am-Main, showed a number of complete solid rubber tyres and sections of tyres specially suited for use on electric automobiles. The 'Peter' tyre, although of solid rubber, possesses almost as much resilience as a pneumatic tyre, being made of the purest rubber. Those who have had experience with the heavier varieties of electric vehicles, especially with those cars employed for business purposes, know the difficulty of obtaining a really satisfactory tyre, either solid or pneumatic, and are painfully aware of the expense of the maintenance and renewal. The 'Peter' tyre is expensive in the first place but its makers claim that its life is much longer than that of ordinary solid or pneumatic tyres, and that the cost of its upkeep is negligible. It is moulded on one solid piece and is used with a special rim, which enables the tyre to be out and taken off in a few minutes, The rim when on holds the tyre securely, so that creeping is impossible.



'PETER' UNION TYRE FOR ELECTROMOBILES.

A section of the rim and tyre is shown in the accompanying illustration, from which it will be seen that one edge of the rim is removable. The removable edge is jointed, and can be detached by turning a left- and right-handed coupling screw; and, when this is unscrewed a few turns allows the tongue, which can be seen on its inner side, to clear the groove in the main portion of the rim. The tyre can then be put on from the side, the edge of the rim replaced, and the whole secured in position by tightening the right- and left-handed screw. In this manner an old tyre can be removed, and replaced by a new one, without any other tool than a spanner, in a few minutes. Although the 'Peter' tyres may, of course, be used with satisfaction on light cars, they have been specially designed to withstand the wear and tear to which the heavier classes of electric vehicles subject them, and are suitable for use with lorries up to 12 tons in weight. The London depôt is at 27 and 29, Laystall Street, Rosebery Avenue, E.C.

LIDOS AND SWIMMING POOLS IN SUSSEX – A BRIEF SURVEY

Diana Durden

INTRODUCTION

In 1993 I began systematically visiting all known extant pools in Sussex and collating documents on these and extinct ones. It was soon apparent that I was just too late for some and far too late for most.

Sadly these days people prefer to swim in tropical-type indoor leisure centres and even the word 'pool' is fast replacing 'lido' on maps. These outdoor pools are also expensive to maintain and heat. We are losing, however, a very special heritage. In their heyday some of these lidos represented Thirties architecture at its very best, the gleaming white walls and sun-terraces providing a glamorous back-drop to flood-lit galas.

My task, therefore, was to record what is left and to document by photographs those that have already disappeared, thus preserving in one form or another these monuments to the leisure industry and indeed the swimming heritage of Sussex. This article, however, is only a selection of, perhaps, the most memorable sites in the county, only about half of which still exist. My research is by no means complete and it is hoped that a modest booklet will appear later which will include a gazetteer of all known sites, both extant and extinct.

To conclude this introduction it is worth considering a few dictionary definitions of the word 'lido' which may help us to distinguish it from a mere pool:-

> "A pleasure resort by a bathing beach" (Collins)
>
> "A luxuriously equipped and fashionable beach resort. A well equipped swimming pool" (Webster's)
>
> "The name of a spit of land, a famous beach resort near Venice now used generally for such a spit enclosing a lagoon, Latin: litus – meaning shore." (Oxford English Dictionary)

The word has therefore changed in its context from the more general meaning of a resort to the more specific meaning of a pool with extra leisure facilities surrounding it, e.g. sun-terraces, cafés and occasionally a small boating-pool incorporated into the complex. Richard Wyndham, author of *South-Eastern Survey* published in 1940 writes: "No sooner do you leave Shoreham than Worthing comes to meet you. Along the coast road these two towns are linked by bungalows set among 'Lidos' and 'Golden Beaches'." In the light of the above remarks his meaning becomes clear!

However, despite a change of meaning and variations in the terminology, the sites in this article have two things in common – they are all (or were originally) open-air and all have some degree of historical significance.

ARUNDEL

The Fitzalan Pool

This pool opened in 1960 and is still operational, providing open-air swimming from early May to early September. It is situated in Queen Street with a large adjacent car-park. The turrets and battlements of Arundel Castle rise above the trees in the background and the pool complex is built on the banks of the River Arun. The entrance buildings are brick-built but there are two wooden buildings alongside the concrete surround, one of which consists of changing chalets. The pool is enclosed partly by a perimeter wall and partly by a wooden fence to screen it from the river. The pool is heated and a record temperature of 80° F 27° C) was recorded in the 1995 heat-wave, while poolside temperatures reached 90° F (32° C). There were record attendances in 1995 and staffing levels had to be doubled. The pool is 33.5 m by 11 m and is from 1.05 m to 2.25 m in depth. There is an added attraction of a toddlers' fun pool and crazy snooker tables.

Management: Arun Swimming Centres (in tandem with Littlehampton Swimming and Sports Centre).

BURGESS HILL

St John's Park

This heated outdoor pool, still known as 'the lido' to distinguish it from its indoor neighbour, was opened in 1935. Burgess Hill Swimming Club, founded in 1985, uses the lido for its galas. Before it was formed, members, in absence of a purpose-built pool, swam in a large pond called Big Hole, on the premises of the Keymer Brick and Tile Works! The lido was extended by the opening, on 8 February 1975, of the then new Swim Centre, commissioned by the former Burgess Hill Urban District Council. At that time the original wooden changing chalets and fountain were demolished. The base of the fountain is still in use as a small circular paddling pool. The filtration plant building still survives at one end and there is a wooden perimeter fence. The surround is partly concrete and partly grassed over and there are a few picnic-tables and sun-shades.

The present arrangement is described in the Swim Centre leaflet as follows: "Best of both worlds. The Swim Centre is lucky enough to have two pools. The indoor pool will be used if our unpredictable English weather fails us, and the Lido will be utilised for our main activities when the weather is good. As a guide, the air temperature will have reached 20° C before the Lido is used as the main pool."

Interestingly, the cost of a ticket for the lido is 30p greater than that for the indoor pool!

EAST GRINSTEAD

The lido was situated on the side of a small valley in Brooklands Park which lies between Brooklands Way and West Hill, and was accessible on foot from each of these roads and also from Orchard Way. It was built in the early thirties and was one of the best of the swimming-pools in the mid-Sussex area. Galas were held there before the war as there was both overhead and underwater lighting, and competitive swimming was held on an inter-club basis usually finishing with a water-polo match.

The following is an extract from a mid-sixties East Grinstead Official Guide: "Brooklands Park is popular for its open-air swimming-pool which is open during the summer season at very reasonable terms. Measuring 100 feet by 40 feet it is equipped with a diving stage, water chutes (one especially for children) and has a continuous flow of clean water. Surrounded by flower-beds, lawns and a rock garden, it is an ideal spot during warm weather and a boon to school children who receive swimming instruction here."

The pool was in a picturesque setting, being built into one side of the small valley which provided an area on the north west side which was terraced and had seating provided for spectators. On the south east side was the entrance with the turnstile pay desk and the area where clothes were stored in the wire baskets provided, the whole building being in corrugated iron originally. From the changing area the pool was approached by a fence and the entry to the steps was via a footpool. The whole area was fenced.

A plant room of brick construction with a tiled roof was situated at the north east end and the chlorination equipment was by Wallace and Tiernan. The filtration was through two Candy filters which gave many years of service. Water was introduced into the pool (as in the case with many others) by a cascade fountain which was placed high on the North West side and discharged down a flight of steps – this was because it was felt desirable to 'aerate' the water.

On visiting Brooklands Park recently no visible remains of the pool could be seen, though the plant room is still there and a large flat grassed area approached by a path from the West Hill side. Sadly this is all that remains of what must have been a splendid lido.

HASTINGS

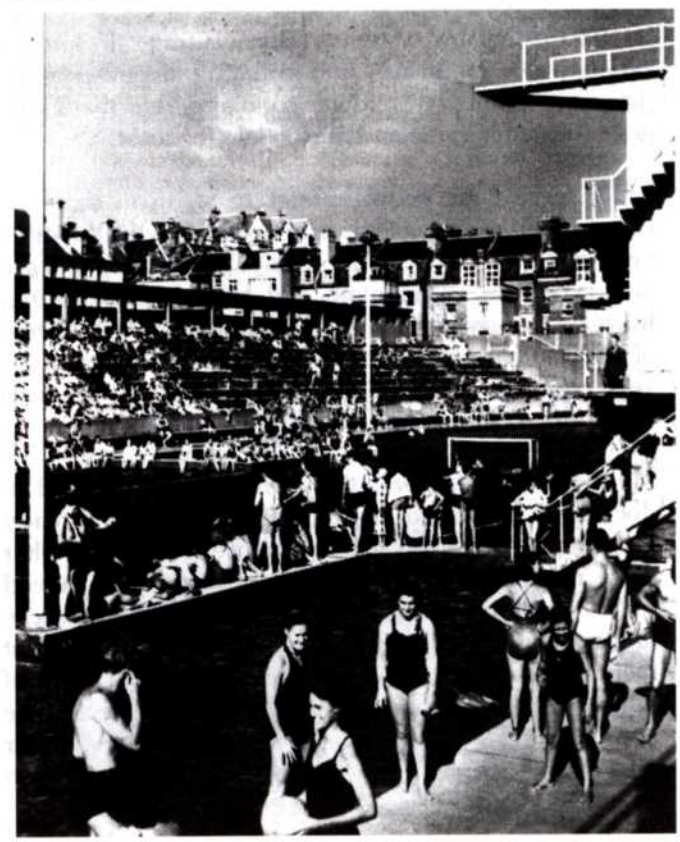


Fig. 1 A happy view of the Hastings (St. Leonards) bathing pool in the 1930s

Hastings Bathing Pool, at St Leonard's (Fig. 1), was opened in 1933 and has had a long and chequered history. It was built to Olympic standards and publicised as Europe's finest bathing pool. It became a focal point at the western extremity of the seafront and achieved international status in the the thirties – one photograph is captioned: "International Contest, England v Holland, August 5th 1933." It had a magnificent three tier diving stage, the top of which rose well above the height of the spectator terraces and was surmounted by the Union Jack. There was also a water slide and two shallow ends. It also had a private beach attached to it – the beach huts are still in use today. In its heyday, the top of the pool enclosure was a roller skating rink which was very popular. The original foyer was very grand and 'Art Deco' with large plants, reception desk and the use of much glass giving an airy, spacious feel to the entrance.

In the early sixties the pool complex became a holiday camp and chalets were built on the roller skating rink. As late as 1993, when demolition was well under way, the words 'HOLIDAY CAMP' were still visible on the external front entrance wall. Today the site is totally flattened but the West Marina Society have plans for the area to include a community and sports centre, small boat slipway, wind-surfing facilities, sunken gardens, restaurant and open-air theatre. There is also some possibility of installing the S.S. ANNE (ship-wrecked in 1690) in the original pool pit, at present filled in with gravel. This would be in co-operation with the Shipwreck Heritage Centre in Hastings.

HORSHAM

Horsham's outdoor pool (Fig. 2) was officially opened on Saturday 7 July 1934. It was situated in Horsham Park and painted signs in North Street and North Parade advertised the pool with the question, "Coming in?"

The pool was 150 feet (45.7 m) long, 40 feet (12.2 m) wide, 3 feet (0.9 m) deep at the shallow end and 8 feet 6 inches (2.6 m) at the deep end. It held 213,000 gallons (968,000 litres) of water. It was constructed of reinforced concrete slabs. At the north end there was a diving stage of 1, 2 and 3 metre dives, a 1 metre spring-board and a 10 feet (3.04 m) high water chute. Provision was made for sunbathing in four bays and there were also grass surrounds.

The buildings comprised the entrance, pay office, dressing boxes, shower rooms and lavatory accommodation placed centrally. There were 99 steel dressing boxes, 44 of which were for ladies.

The filtration plant was installed by the Candy Filter Co. (as at East Grinstead) and the water was turned over completely every six hours. The engineer was C.G. Atkinson.

The present pool (under the name of Park Swimming Centre) consists of the original pit covered in 1983 to make an indoor pool. The old spa is still in use. There is a new entrance foyer, changing rooms suite and modern surround. There is an informative display on the first floor of the foyer of photographs of the old pool, framed handbills advertising the official opening, annual galas etc.

LEWES

Pells Pool not only has the distinction of being the oldest open-air pool in Sussex, but it is believed to be the oldest in the country. This alone sets our swimming pool heritage in a class of its own, even if it is fast disappearing!

The pool is in leafy pleasure grounds at the foot of Pells Terrace and Brook Street, planted to commemorate Queen Victoria's Golden Jubilee. A tablet on the perimeter wall at the entrance informs us that the pool was built from funds raised by public subscription in 'A.D. 1860'. The pool itself is a pleasant one, with a pale pink concrete surround, seats, and an adjacent recreation ground bordered by trees. On the other side is 'The Pells', an L-shaped canal which once powered a papermill.

However, like many other pools it is under threat of closure and has since 1991 suffered a decline in numbers using the pool. Individuals contend that the pool is a precious asset to the town and should be kept open for its health benefits and historic value. A 'Save the Pells Pool Campaign' is in existence to help fight for its future.

PEACEHAVEN

The pool at Peacehaven was slightly unusual in that it was a tidal or beach pool. It was built in reinforced concrete on the foreshore in the 1930's at the foot of the Bastion steps. Bob Poplett, the author of *Peacehaven – a Pictorial History*, worked on its construction being paid 8d (3.5 p) per hour and often had to work all night while the tide was out. The water in the pool was changed twice daily by the tides and was three to four feet (0.9 to 1.2 m) deep. Unfortunately during the Second World War it was neglected and later had to be demolished.

ROTTINGDEAN

In a position similar to that at Peacehaven, Rottingdean Bathing Pool was built almost on the beach at the foot of the Undercliff. It was small and compact and in a sheltered position. It was a sea-water pool and "hygienically cared for by continuous filtration". An old photograph shows what appears to be a line of concrete changing chalets or possibly a covered spectator area at the eastern end, running right up against the cliff. More recently this was simply a cream-painted perimeter wall and cubicles, lavatories, etc. were at the western end, with the entrance at the western corner of the beach-side perimeter fence so that the whole pool was visible from the sea and Undercliff Walk. It was demolished about two years ago.

Fig. 2 Horsham Pool in 1935

Fig. 3 Saltdean Lido in its heyday.
The year is almost certainly 1938.

SALTDEAN

Saltdean (Fig. 3) is unquestionably the 'queen' of Sussex lidos. Saltdean's lido, in its magnificent setting, is an architectural splendour in its own right. The approach from Brighton over the crest of a hill affords a wonderful panorama of the white-walled Lido set in the green hollow of the land, with the blue sea as a perfect complement. It well deserves to be called one of Saltdean's sea-front showpieces, the other being The Ocean Hotel, the pool of which will be dealt with in the booklet referred to in the introduction to this article.

The architect was R.W.H. Jones whose work also included The Ocean Hotel and the developments at Rottingdean. He was undoubtedly influenced in his design by the work of Eric Mendelsohn, the architect of Bexhill's De La Warr Pavilion (1935). There are also similarities between Saltdean and the lidos at Morecombe and Ruislip. It certainly attracted the attention of the architectural press of the day, technical reviews appearing in *'The Architect and Building News'* in two consecutive weeks in August 1938.

The site is a bowl-shaped hollow within a couple of hundred yards from the sea, facing the subway to the beach. The natural depression provided effective screening against the sea wind. The 'aeroplane' curvilinear plan of the structure comprised a central two-storey block with wings on either side. A spiral staircase led from the main entrance foyer up to a spacious cafe to the flat roof where there was a tea terrace and sun-deck). Each wing of the building accommodated changing rooms. The pool itself could amply accommodate 500 bathers. Among the features which have disappeared from the present day lido is the reinforced concrete three-tier diving board echoing the lines of the main building, the boating pool to the rear and the elaborate rock garden on the western embankment. The form of water heating has changed and the chimney stack to the rear of the roof has been removed. The paddling pool and fountain have remained and there is now also a waterslide and sandpit. The lido is even advertised on the side of Brighton Blue Buses as "The best outdoor swimming pool on the South Coast"!

Perhaps the building in its heyday may be most vividly imagined by picturing its slender line standing out boldly on summer nights from the surrounding parkland, its white walls impressively illuminated by floodlights, while within the structure itself, concealed blue lighting emphasised its flat planes and provided a blue haze all around.

WORTHING

Situated right by the sea, on the promenade, 200 yards west of the Pier, Worthing Lido was built primarily as a seaside pleasure ground and still fulfils that function today. Interestingly, swimming has only been a part of its history rather than the 'raison d'etre'. It has a Thirties design and was a popular venue for band concerts, the rectangular bandstand with extending canopy being replaced later by the present circular one. The swimming use came later and it became an open-air sea-water pool. Now the pool has been paved over (but retaining the original pit beneath) and is an entertainments centre in the summer and an art and craft gallery with cafe in the winter. The complex comprises a curvilinear enclosure 100 feet (30.5 m) long by 24 feet (7.3 m) wide with windows along its length. It is called "The Lido" today.

ACKNOWLEDGEMENTS AND REFERENCES

Introduction: Richard Wyndham, *South-Eastern Survey*, Batsford, (1940)

Burgess Hill – I am grateful to the pool manager for allowing me to obtain information (including photographs for use at a later date) and also to Tom Evans and Geoff Mead, both of SIAS, for sending me cuttings about the Lido.

East Grinstead – I am indebted to Robert Fry of SIAS, who was an engineer with technical responsibility for the pool, for sending me detailed notes, elevations and plans, which furnished all the information contained in this section.

Hastings – David Cousins of the West Marina Society, St. Leonards, has been most generous in sending information about the pool. The photograph originally appeared in Pamela Haines, *Hastings in Old Photographs – a Second Selection*, Alan Sutton Publishing, 1991, and is reproduced here by kind permission of Hastings Reference Library Collection.

Horsham – I am grateful to the pool staff for allowing me to photograph and copy information from the display in the foyer. The photograph originally appeared in a 1933 calendar and is reproduced here by kind permission of the Horsham Press.

Peacehaven – I am grateful to Bob Poplett, author of *Peacehaven: A Pictorial History*, Phillimore, 1993, for allowing me to quote from his book.

Saltdean – I am indebted to Douglas d'Enno, author of *The Saltdean Story*, Phillimore, 1985, for giving me his kind permission to quote from his book and to use the photograph accompanying the text in this section.

THE SEA HOUSE HOTEL, BRIGHTON

Geoffrey Mead

"Storm as pub gets the boot" – this title headed an article which appeared in the *Brighton Argus* of 8 August 1995 and was an illustrated piece on the failure of the University of Sussex licensing application to refurbish a derelict pub just off Brighton seafront, that was planned to be incorporated in a seafront complex to provide accommodation for more than 130 post-graduate students. The site was previously Courts' Furniture store and prior to that the linen shop of Barrance and Ford. It had long been a derelict eyesore in the middle of the seafront and this re-development costing £2.5 million would be a welcome injection of funds into a rather run-down area.

The licensing magistrates saw fit to turn down the application for a liquor licence although there were no objections from either the police or local landlords. An appeal was lodged in the Lewes Crown Court and was heard on 9 February 1996. As part of the appeal, the Centre for Continuing Education, University of Sussex was asked by the legal team to produce a history of the site and what follows is the summary of the findings of the research team – me!

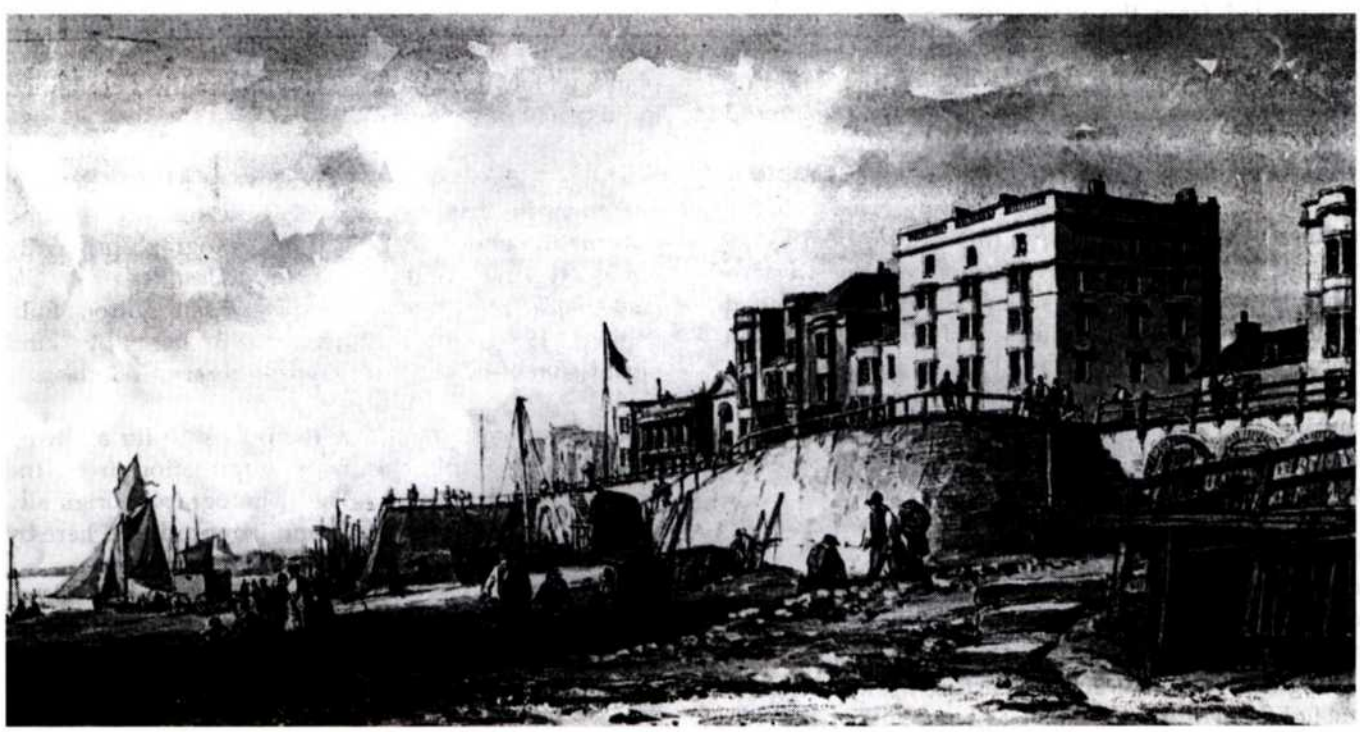
THE SEA HOUSE

The Sea House is a pub of some antiquity and of considerable historic interest, its past closely linked with Brighton's history, in particular its seafaring heritage, currently being promoted so assiduously by Brighton Council.[1]

First noted in documentary sources in 1791 when James Leach was proprietor, it must have pre-dated this as a 19th century source describes its appearance in 1800 as "a wretched looking miserable old building" in spite of which the Town Vestry is reported as holding meetings there regularly between 1790 and 1804.[2]

At that date and in the period prior to 1832 its name was the Ship in Distress and was one of a number of town taverns with seafaring signage, such as The Anchor in East Street, the Old Ship in Ship Street, and the Last & Fishcart in Black Lion Street. This was a reflection of Brighton's role as one of the principal fishing towns on the south coast, one whose economy was, at an earlier time, bound up in shipping, rope and net making, and boat building.[3]

The Ship in Distress had an appropriate landlord as James Leach was a member of the old fishing family of Leach, still strongly represented in the town to this day. In 1744 a John Leach was one of the 13 ratepayers



Watercolour of Brighton seafront signed and dated R.H. Nibbs 1851.
The prominent rectangular three bay stuccoed building immediately to the right is the Sea House Hotel.
(Royal Pavilion, Art Gallery and Museum, Brighton)

in Middle Street where the tavern is located at number 1.[4]

The tavern sign -

> "By danger we're encompassed round
> Pray lend a hand, our ship's aground"

was apposite, as until the 1820s the sea washed the foot of the low cliff on which the tavern stood. Progress westward from the bottom of Middle Street meant either a diversion on to the shingle down the ramp at Middle Street Gap or by a tortuous route along Middle Street Lane (now South Street). Pedestrians could make use of a plank causeway on the south side of the building, though as was noted – "... only during fair weather as so close to the houses were the rage and flow of the sea during a storm that the planks which formed the pathway had to be removed to prevent their being washed or blown away".[5]

During the period 1811-1821 the town's increase in population of 103% from 12,000 to over 24,400 was a powerful impetus to improvements in the town's infrastructure. The work to improve the coast road west commenced in 1820 and the roadway was built out over the beach in front of the tavern on a series of archways. The "miserable old building" was converted into a much larger grander structure and renamed The Sea House, although over the next 40 years the suffix veers from hotel to tavern and inn, settling as the Sea House Hotel by 1867. [6]

The actual date of the rebuilding and re-naming is as yet unsure, for in spite of many later accounts the local licensing records list the house as Ship in Distress until the earliest surviving volume ends in 1832. One source states it was rebuilt by John Gallard in 1825; not listed anywhere as a tenant, Gallard was probably the builder.[7]

Being set on the central seafront of Britain's most fashionable resort, the Sea House with its enlarged facilities was always listed in the fashionable guides alongside the Norfolk and Old Ship, with comments such as "among the principal hotels" or "amongst the best". The epitome of its fame occurred in 1830. William IV, then only king for eight weeks, arrived in the town on August 30th to huge celebrations, the town bedecked with elaborate decoration and illumination. The *Brighton Gazette* in listing the main thoroughfare decorations stated the Sea House Hotel as having "W IV R surmounted by a crown, all in gas. In the balconies variegated lamps set about with laurel and evergreens".

The Sea House was to figure in the following week's edition when it was noted

> " **Fashionable Chronicle – the Palace**
>
> On Saturday (4th September) Sir Robert Otway received the King's Commands to go to the Seahouse (sic) Hotel and acquaint Viscountess Nelson who is staying there, that he would pay the widow of the gallant Nelson a visit on Monday. Accordingly about four o'clock on the latter day His Majesty went in his carriage and remained with her ladyship for three quarters of an hour. We believe that His Majesty, when Duke of Clarence, gave the Viscountess away at her marriage".[8]

Popular account has it that the landlord, David Lloyd, re-named the building the Royal Sea House after this auspicious occasion, yet only one local guide uses this prefix, in 1839, and the East Sussex Poll book of that same year still uses Sea House.[9]

In 1843 a town guide appears, the first not to list the Sea House, and from then on comes a rapid turnover in landlords but no change in status other than the inclusion in directories of trade of "billiard rooms – wine and spirit merchant" under the tenure of Henry Mortlock in 1862. By 1850 the ownership changes from the old Brighton commercial family of Wigney, whose interests covered such trades as brewing and banking, to the West Street Brewery of Vallance and Catt.[10]

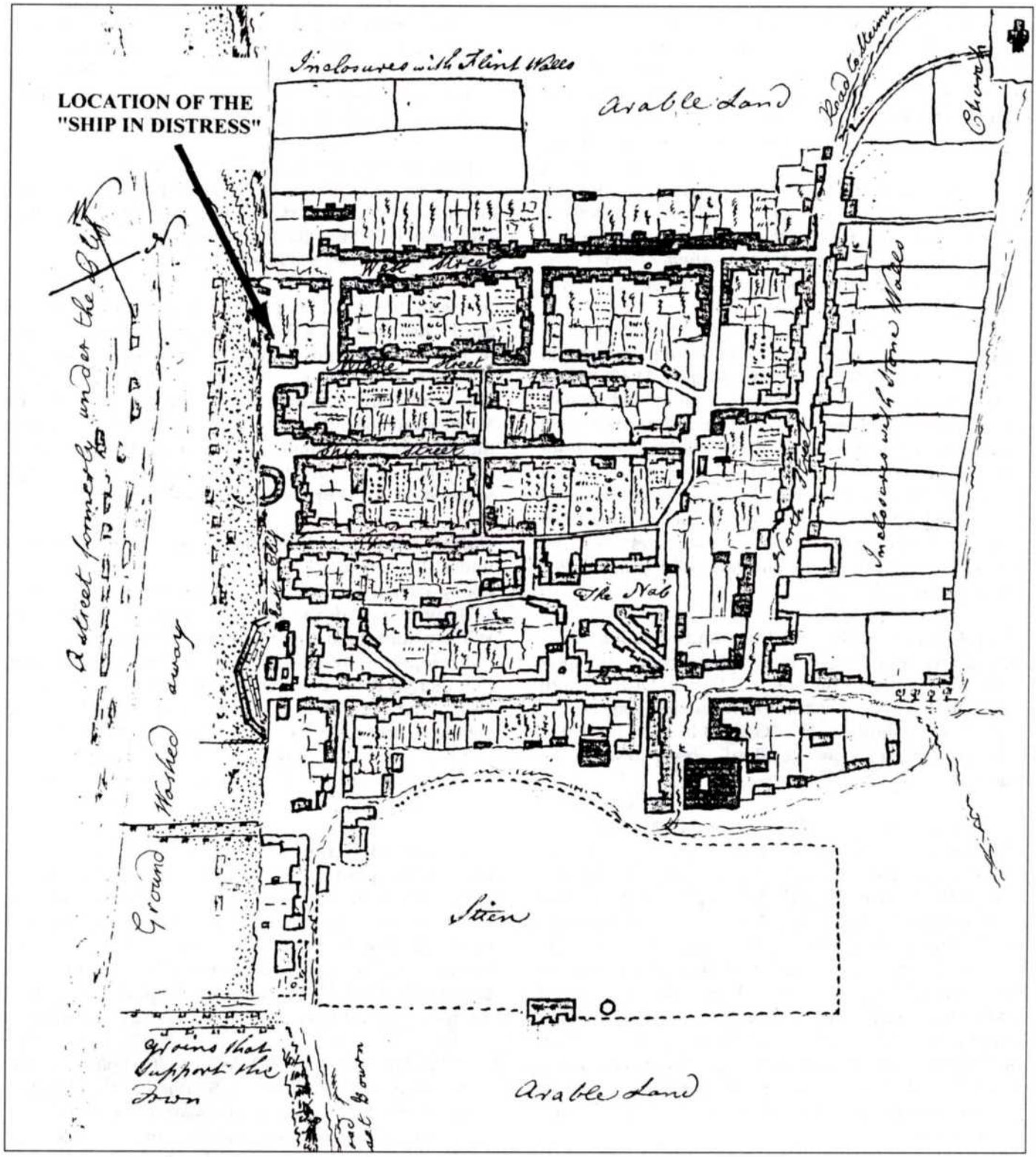
During this period the longest recorded tenancy is under the Sheldrick family with William possible taking over from 1867 and Martha succeeding him in 1870 until her death in 1885, when it reverted to William, and the before mentioned Mortlock, until the following year. In what must be a record for a seafront pub there is only one offence recorded which occurs in 1876. The Brighton Borough Bench records for alehouse licences lists on 6th November – "Martha Sheldrick for keeping her house open during prohibited hours and fined 5s and costs. Licence not endorsed."[11]

Sometime mid-century the southern portion of the hotel fronting Kings Road was turned into a fancy goods store and toy repository which eventually developed into the upmarket linen store, Barrance and Ford. The Sea House was then concentrating on the tavern trade at 1 Middle Street and, as such, was acquired by another local brewery, Tamplins, in 1899. [12] Tamplins House Specification book, 1909, describes it thus

> " Sea House Hotel, Middle Street, first off front at corner of Middle Street and South Street. Old three storey brick composition and slate. Good state of repair. First floor good billiard room, two tables. Very deep to South Street 90 feet by 30 feet Middle Street.
> £130 rent. Tenant F.E. Palmer commenced 3/3/1904"[13]

There were some internal changes in 1929 with the removal of a small private "snug" bar and enlargement of the public bar, with more alterations to the long bar counter in 1934, possibly reflecting the upturn in trade that was seen elsewhere in Brighton with the interwar improvements seen at a number of locations, the Undercliff walk, enlargement of Preston Park, building of the SS Brighton ice rink, and the luxury flats at Embassy Court and Marine Gate.[14]

Other than an account of the upstairs restaurant in 1984 – "The Crow's Nest ... quiche and chips £1.60" –



William Greene map of Brighton dated 31 May 1773 with location of the Ship in Distress Inn shown
(East Sussex Record Office AMS 6279/1)

the Sea House stayed out of the limelight, eventually being "disposed" by its then owners, Entrepreneurs in 1989.[15]

Whether from the perspective of maritime heritage seen in its former appellation "Ship in Distress" or of noble patronage, the royal visit to Lord Nelson's widow, this site is an integral part of the town's past.

Yet even when viewed from a social history viewpoint far removed from Kings and Viscountesses its history is interwoven to the town's fabric. For example in the 1820s two of the providers of surety to the licensees were Hyam Lewis, a pawnbroker, later to be commemorated in the street name near Duke Street, Lewis's buildings, and Henry Vine, developer of land on the North Laine that became Vine Street.[16]

This site is a microcosm of Brighton, rich and poor, royalty and mariners.

The conclusion of the appeal of 9 February 1996 was the successful granting of the full licence and the building work should be completed by June 1996 with the official opening in October.

The work undertaken in researching this site is a case study of the social and economic changes undergone in Brighton over the past two hundred and fifty years.

When the town's trade was deep sea fishing, boat building, rope making, fish curing and coastal shipping, the primary, secondary and tertiary sectors of industry, the tavern had the robust maritime appellation "Ship in Distress". By the 1820s the role of the town was predominantly service economy, leisure and the needs of a rich clientele replacing labouring industry. The 'nouveau-riche' sense in the town saw the Ship in Distress become the Sea House Hotel and for a short period the Royal Sea House Hotel. Press accounts listed it among the best accommodation in town. As the town embraced the day-tripper trade during the latter half of the nineteenth century the Sea House declined, lost its seafront portion and became a side street tavern. The nadir must have been reached when the house, once visited by William IV, was selling quiche and chips in the 1980s! Neglect of the town's maritime heritage was mirrored in that period's shabby treatment of the seafront in general. The building of the appallingly inappropriate Top Rank Suite in the 1960s, bland buildings in the 1970s, and later of large hotels and the Brighton Centre, all linked to this loss of pride in Brighton's major feature.

With the publication by Brighton Council of its plans to refurbish the area of the seafront, new interest in the area has seen the opening in 1994 of the Fishing Museum in the Lower Prom arches, alongside a thriving artists colony and rapidly increasing range of cafes, bars, clubs and restaurants adjacent to the beach. Opening the accommodation block has revitalised a run-down site and shows how the renewed interest in the area is being seen in, literally, a concrete form. Most appropriately for this recognition of the maritime heritage is the proposal of the Catering Unit of University of Sussex to revert to the original tavern name "The Ship in Distress", although there are also suggestions to adopt a name to reflect the international nature of both the town and the university one suggestion being "The Shrinking Globe". As Brighton is the U.K. centre for the burgeoning multi-media industry the latter name may reflect the coming economic feature of twenty first century industry and a new direction for the economy of Brighton.

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BISHOPSTONE TIDE MILLS NEWHAVEN, AND ITS ENVIRONS

Peter Longstaff-Tyrrell

The milling of grain using natural power sources has focused on the windmill and water mills operated by the flow of rivers and streams. A certain romantic nostalgia has developed around buildings that survive and the equipment used. Coastal mills, operated by the ebb and flow of the tide, though fewer in number, played an important role in the milling industry however. The damage from pollution caused by the generation of power from carboniferous energy sources is now realised, and a greater appreciation of the value of natural sources of power has resulted, leading to the construction of wind towers in recent years to generate electricity, and the consideration of various schemes to harness tidal power.

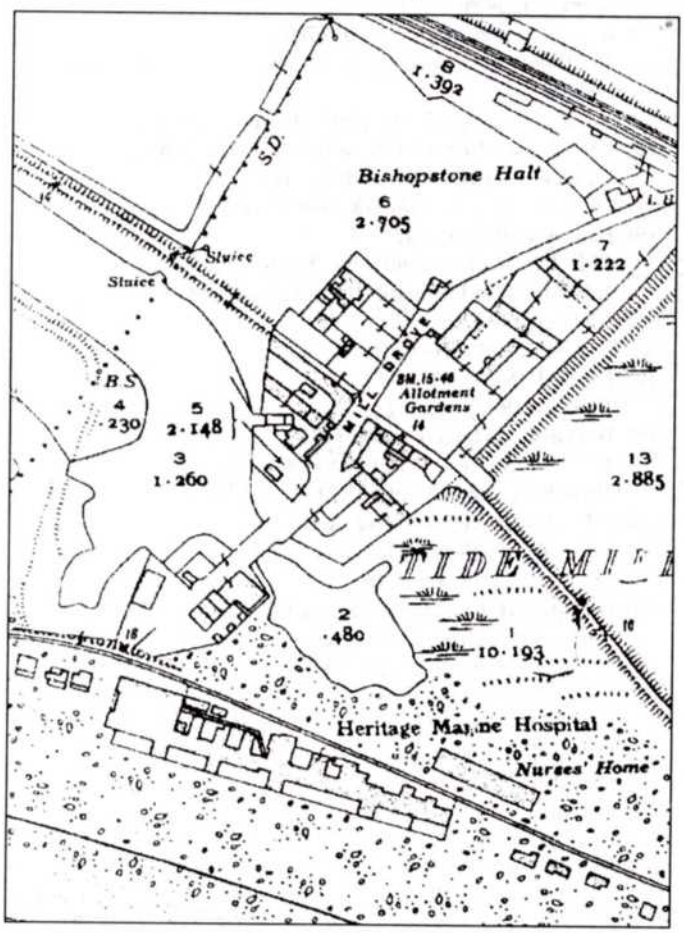


Fig. 1 Tidemills 1940 (25 inch O.S. map)

It is regrettable, given the current climate of conservation and heritage awareness, that the once-splendid pebble-walled Bishopstone Tide Mills hamlet off the A259 coast road between Newhaven and Seaford can only be appreciated from old prints, photographs, books and personal recollections. Newhaven Museum has however video-recorded for posterity interviews with elderly residents of the final community, whilst amongst the Museum's exhibits are a variety of illustrations, artefacts and literature on the once industrious complex. These exhibits include a charismatic film, circa 1929, of the Chailey Heritage boys and staff at work and play on the seashore and in the hospital built near the mills.

The water flow at the Tide Mills at Bishopstone allowed for a controlled 16 hours of production out of a 24 hour tidal cycle using the flooded creeks and sluice gates. (Fig. 2) Windmills of course were far more dependent upon climatic conditions for their production schedules. It was violent stormy weather, amongst other factors, that contributed to the closure of production at the site in 1883. The railway authorities developed Newhaven port's east quay across the creek of Mill Pond which meant that barges could no longer access the mills and this, added to a change in grinding methods and mechanisation in the industry in general spelt out their closure. The equipment was largely sold off and the four storey mill building became a bonded warehouse, although up to 1914 many of the structures remained intact.

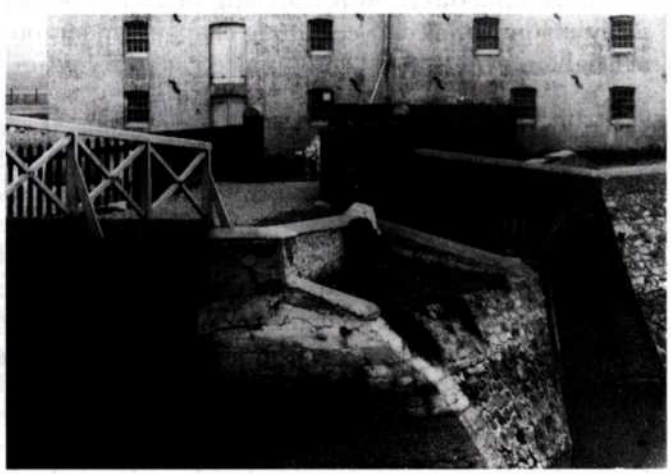


Fig. 2 Two Sluices – sea side of Tidemills 1883
Through one of these, barges could
reach the Buckle – Seaford

The final occupants of the Tide Mills settlement were given 48 hours to leave their homes just prior to World War II when it was considered that the buildings could provide landing cover for invading enemy troops. Most of the villagers, consisting primarily of railway employees and agricultural workers by this time, had moved out during 1937, although around half of them are reported to have moved back temporarily. Subsequently however the area was to be used by Canadian troops as a battle-school site for house-to-house training purposes and added to the devastation of the hamlet. A similar fate befell quaint Stanmer

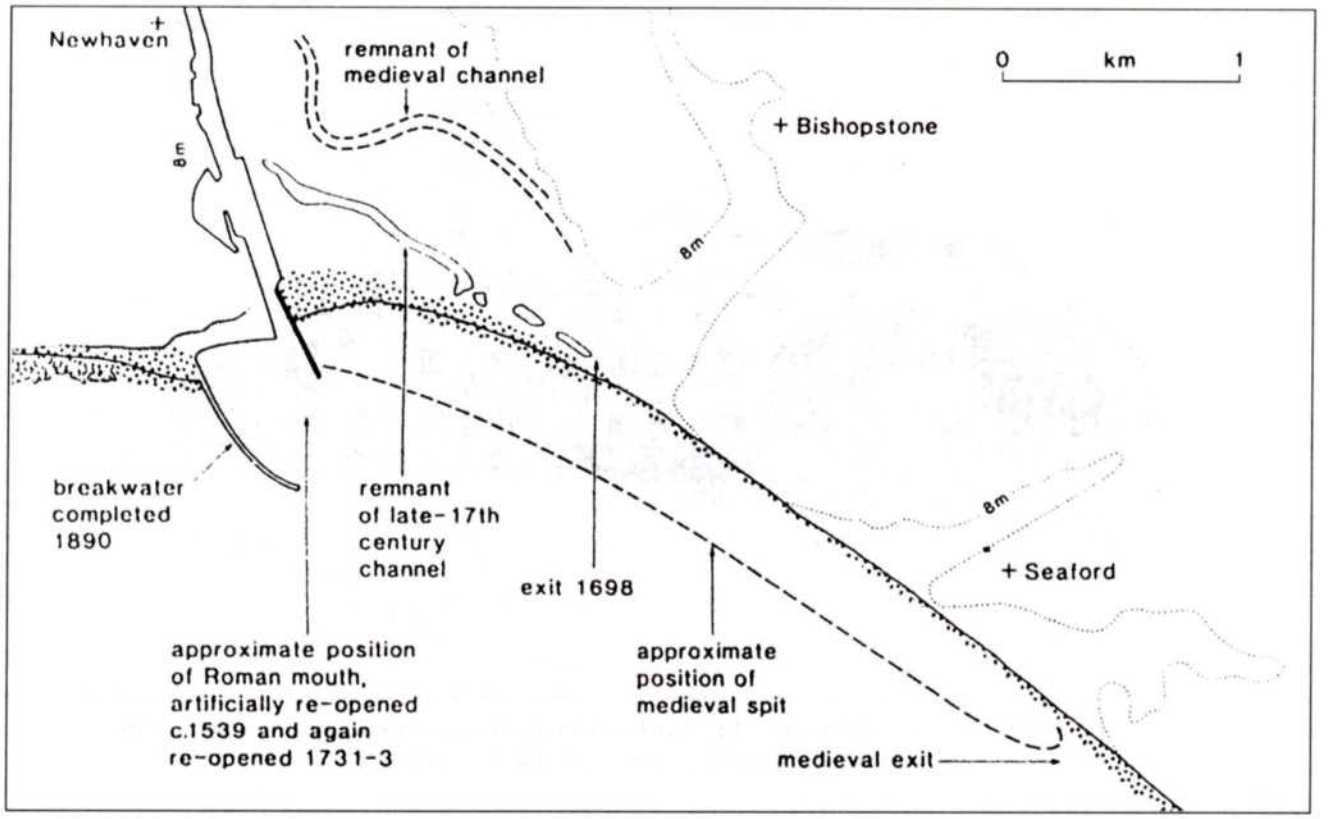


Fig. 3 Changes in the outlet of the Ouse

village outside Brighton during WWII where the cottages were severely damaged. Fortunately Brighton Corporation were prompt in reinstating these properties post war.

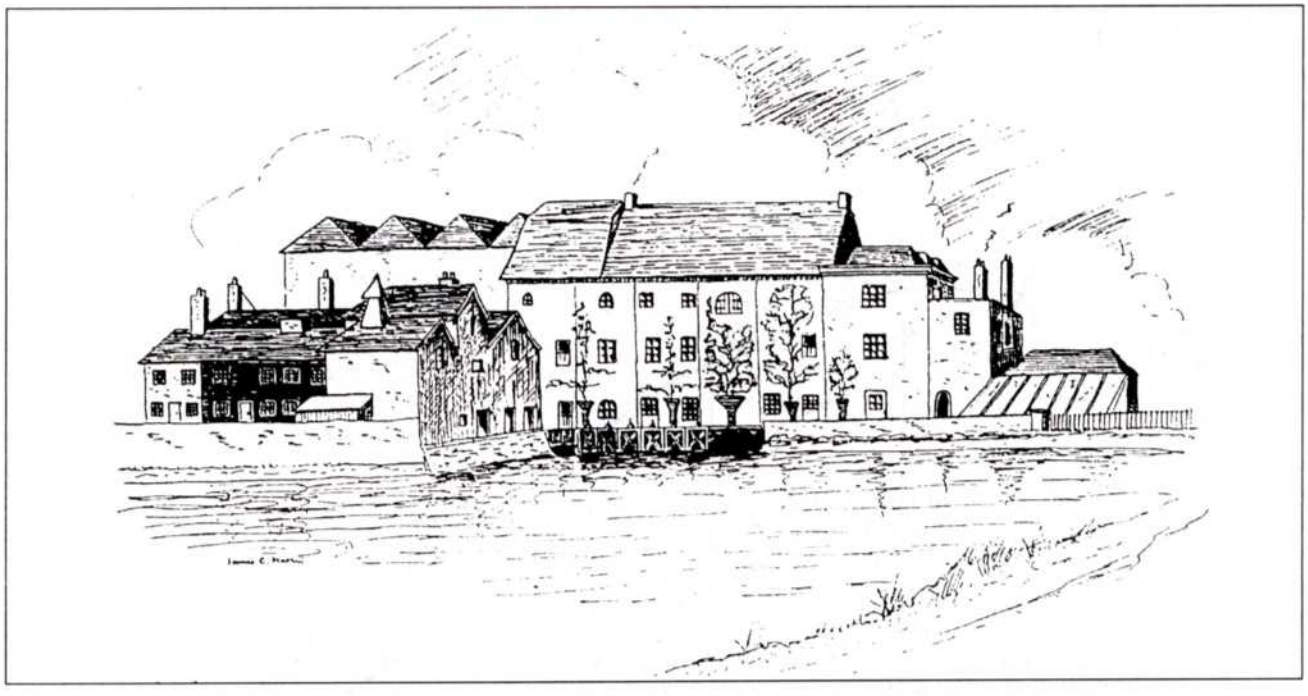
In the 1930s it was intended to promote the Bishopstone area at Hawth Hill for residential and light industry purposes. The splendid Art Deco station, with its octagonal shaped tiled booking hall, was constructed during 1936-38 and opened on 26 September 1938 as Bishopstone Station and remains today with its pair of pillbox military defences built into its roof structure, though the booking office, station facilities and sidings are now largely unused.

The original Bishopstone station, situated close to the Tide Mills opened on 1 June 1864 and closed on 26 September 1938. It reopened as Bishopstone Beach Halt at Easter 1939 and finally closed on 1 January 1942. The information in railway enthusiast books and official sources can be confusing as the station was referred to locally as the Tide Mills station. Many people post war will recall the word 'Bongville' adorning the old station nameplate hoarding, a name believed to have been donated by visiting Canadian troops in WWII. A shore-line industrial line at the Tide Mills itself ran right up Mill Drove, the village main street. An up-line pull-and-push D1 class locomotive no. 2244 propelling former LBSCR motor set no. 758, was machine gunned nearby on 3 July 1940, the train was little affected although the fireman was fatally injured.

Origins of the Tide Mills

The Duke of Newcastle had country homes at Halland and Bishopstone Place and thus had great influence in the district. His background derives from the baronet Thomas Pelham who was raised to the peerage by Queen Anne with the title Baron Pelham of Laughton in Sussex where he owned two estates. His first son Thomas was born in 1694 and was followed by Henry. It was Thomas who succeeded his father. Under the will of his uncle John Hollis, the Duke of Newcastle who died in 1711, Thomas (recorded elsewhere as Thomas Holles) became the owner of his uncle's vast estates. He was to join the Whig party and led them in many a parliamentary campaign. Amongst his many titles he was the Duke of Newcastle-under-Lyme, Duke of Newcastle-on-Tyne, Marquis of Clare, Lord Pelham and a Knight of the Garter. He was a very popular person in the county where he held considerable influence hosting lavish parties and donating to benevolent causes.

The area has an intriguing history dating back centuries and its history can be traced from old Admiralty maps or geographical surveys. In Roman times the river exited at approximately the present position. It was artificially re-opened circa 1537 and excavated again in 1731-3 although until the late eighteenth century the River Ouse flowed into the English Channel at Seaford. This creek can still be traced. By 1750 the cutting to the beach was firmly



Drawing made in 1934 by Mr. J.E. Martin from an unsigned oil painting, circa 1835
(*Sussex County Magazine* – T.R. Beckett Ltd.)

resurrected south of the village of Meeching and from this development the port of 'Newhaven' expanded its commerce considerably in the nineteenth century. (Fig. 3)

The enterprising Duke of Newcastle, who resided at Bishopstone Place, is often credited with the idea of the mill complex for the grinding of corn and grain. The parish covered the marsh land and shingle area from Hawth Hill inland to Norton and Poverty Bottom and their coastal approaches. During 1761 the Duke initiated the passing in Parliament of an Act to allow three merchants, John Woods of Chilgrove and William Woods and John Challenor both from Chichester, to erect a corn and grain tidal mill in this parish. The Duke granted a 500 year lease from Lady Day 1761. As previously stated by this time the Ouse exited at Newhaven and the Tide Mills worked from water wheels turned by the rising tide flowing into the mill pond and similarly by the ebb tide motion of the water out of the pond, Vessels of up to 140 tons could reach the mill via the creek.

In 1803 the site was leased to William Catt who had been born at Buxted in 1776, the son of a humble farmer. By this time, though, Catt was a prominent Sussex merchant, and he managed the area west of the Buckle Inn at Seaford. Marsh land was gradually reclaimed and earth banks were constructed to provide shelter from the sea. The community grew to about 100 people including families, with cottages, carpenters and blacksmiths workshops, mill offices and a granary. William Catt introduced additional mill stones to bring the total from five up to 16 stones and a windmill (Fig. 4) was added to the warehouse roof to raise goods to higher floors. The mill was regarded as the largest industrial unit in Sussex at the time.

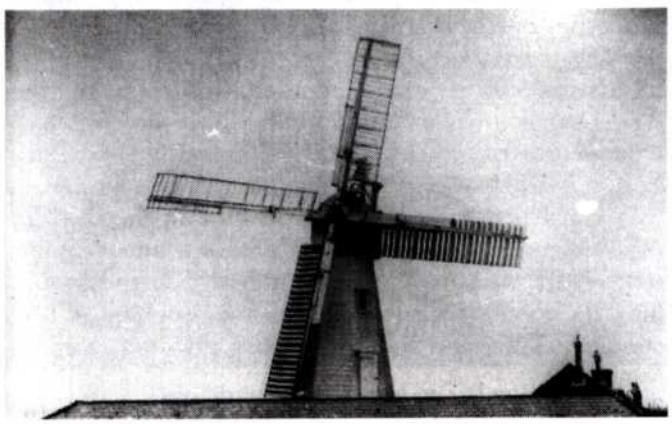


Fig. 4 Windmill on top of the Tidemills, 1883

It is always curious how place names change even during recent generations. In a *Sussex County Magazine* article of 1934, the Reverend Frederic Willett records the site as 'The Tide-Mill Bishopston'. Mr. Willett, then aged 95, was a grandson of William Catt and had a vast wealth of legal information upon the Tide Mills and its creator. Mr. Willett noted that the 'Duke keenly approved a proposal to build a mill on the creek to be worked by a large wheel acted by the tides'. This suggests that the Duke was not the originator of the project and the idea may have come from the merchants who subsequently leased the site.

Activity at the site

Under favourable tidal conditions the mill could produce up to 1,500 sacks of flour weekly. In 1795 Oxford Militia troops at Blatchington Barracks, disgruntled with their living conditions, mutinied and after seizing food stocks at Seaford marched to the Tide Mills where they grabbed 300 sacks of flour from a sloop named *The Lucy* destined for Falmouth. The authorities were swift to respond and six of the mutineers were hanged in Hove and Horsham and the others were transported overseas. At their peak the mills supplied flour to most of the county and as well as the legion of army camps positioned around the coastal ports during the Napoleonic wars. It has been recalled that prior to the repeal of the Corn Laws in 1846, twice a week a large wagon drawn by four horses went as far as Portsmouth with flour for the troops.

In 1848 King Louis Philippe of France sought exile and landed in Newhaven at the location later known as Sleepers Hole. It was William Catt who met the King there and who had advised the monarch on mill sites in France. Louis Philippe died in exile two years later in Croydon where Queen Victoria had provided a house for his family.

As a recreation William Catt is noted as an ardent fruit grower and trained pear trees to be fanned out over the mill buildings walls (Fig. 5). It is said that Sweet William pears were named after him. He ruled the community of around 60 families with a distinct authority and it is recorded that residents had to be within the walls' three gated confines by 10.10 p.m. when the gates were locked. On one occasion he sensed he was being betrayed and he spotted a pair of men clambering over a gate just 10 minutes late. He suspended their privileges and banished them to the village perimeters for a month. Before William Catt died in 1853 he had seen the fulfilment of his Tide Mills enterprise. He is buried in the graveyard of St. Andrews church at Bishopstone in the family vault.

However for all its ingenuity and prosperity time moved on for the Tide Mills. Significantly the repeal of the Corn Laws allowed cheaper foreign grain to be imported from the continent and from the 1870s particularly from America in bulk. Engine driven mill-ground flour could now be readily despatched round Sussex. The railway network from the 1840s largely made obsolete the trade of barge-carried goods. In 1847 the London, Brighton and South Coast Railway reached Newhaven and took over the harbour. A need to finish the eastern quay in 1884 and supply immigration and passenger facilities meant closing the creek that supplied the Tide Mills, although sluice gates allowed water to reach the residents still. From 1890 to 1901 the mill house was leased as a bonded warehouse by the Cafe Royal of Regent Street London.

The death of William Catt, railway development and a severe storm all contributed to the demise of industry at the mills. During a storm in 1876 the sea had poured over the shingle spit into the buildings. Homes were destroyed as the land was flooded and the mill was damaged beyond repair. The windmill above the granary was blown down sometime after 1883 adding to the demolition of the hamlet and in 1884 the railway had closed the creek to barges. In 1901 further buildings were demolished at the site now owned by the railway. Mill worker residents were gradually replaced by farm labourers and railway families involved in the construction of the east pier and sea defences. It is recorded that on the beach railway line the first armoured train was evaluated in May 1884.

Captain David Dale operated Dale's Racing Stables along the foreshore until they moved out in the 1930s, although he continued to live at the mills. He was known as 'the crack doctor' as he specialised in horse ligament injuries from premises in former Royal Naval Air Service sheds. Mrs Kimmins's philanthropic Chailey Heritage Hospital for Crippled Children was built even closer to the seashore (Fig. 1). The building foundations can be viewed just east towards Seaford, around the rail line and several former railway carriages were located as holiday homes privately. Up to 100 boys were housed at Chailey hospice on the seashore and enjoyed a healthy lifestyle. The project developed into the Searchlight Homes that are now sited on a former army camp at Denton. The advent of WWII finally meant the demise of all accommodation at the Tide Mills. Any buildings that could provide enemy forces with landing cover, or lay in the range of Allied gunnery, were demolished and by 1945 the hamlet was just a bedraggled remnant of a former generation.

Family life at the Tide Mills

Writing in 1987 a former resident recalled her experiences of family life there. This lady was born in 1906 when the working life of the mill had long expired but a thriving community still resided there. Around 1912, the sea flooded the whole village, for it was below sea level. She recalls her father carrying her out of the four bedroomed house where she lived with the water up to his arms. All the village children were kept in the large mill house that was the centre of their community life. She recalls looking out of an upstairs window and seeing a chicken and flotsam floating down the road. When the morning tide receded village boys were making rafts and going almost as far as the Buckle Inn on board them.

Fig. 5 Tidemills – Towards the Sea 1883
Pear trees grow up the front of miller William Catt's house

The lady had fond memories of the RFC and RNAS officers whom she met at Tide Mills during WWI when they used the seaplane base nearby and brought a new lease of life to the community. Huts were built on stilts and there were a couple of large hangars. Occasionally there were mishaps. 'One time a seaplane hit the top of the mill house and took off the spire, knocking it into Mill Pond. My brother and I were watching and we just saw the pigeons flying out in panic. The spire was carried into the mill stream and the plane hit the water, killing the pilot'. Many of the families living at Tide Mills between the wars are familiar names to Newhaven folk, long-standing names like the Greens, Geerings, Hopkins, Gates, Tubbs, Larkins and Davies.

Later on there was speculation that a Butlins Holiday Camp was planned for the site, but planning permission was refused (mercifully!) as the area lay below sea level. Flooding was at its worst during the spring tidal season. Water used to flow over the narrow barrier and the lady recalls asking her father 'is the sea coming over tonight, Dad?' 'No, no!' he would say, although he still took precautions just in case. Bleak as the area is today, there was once a lot of greenery around the hamlet. Many of the houses had large gardens and fields surrounded them. Their garden had an orchard with chickens running around also. Barns and store houses existed in addition to the living accommodation. The village was not connected to any mains sewerage system and one chore that the villagers had to endure was the dumping of large wooden containers of domestic waste in a pit dug into the sand by the shore for the tide to take away. Village life locally at this time was of course strong, people making their own entertainments. The lady reflected, along with many others today, that if only the buildings had survived their gradual fate the Tide Mills community would be a prized local asset today.

Newhaven seaplane base

Between the 50 odd acre Tide Mills plot and the eastern harbour pier can be found a vast concrete base that was the site of the Royal Naval Air Service seaplane base that had opened in May 1917 and was one of the nation's first wartime sea plane bases.

Early in 1917 Portsmouth Group of RNAS stations re-surveyed the south coast following an increase in unlimited enemy submarine warfare in the English Channel. The five acre Newhaven site was based on shingle beside the eastern harbour wall at Newhaven. Fifteen feet above high tide level a large double fronted wooden hangar was constructed with a wooden slip-way to the sea. Accommodation was found in huts behind the hangar and officers were billeted at Bishopstone, with the Tide Mills allocated as Mess Rooms.

During 1918 the RNAS Newhaven base was extended with a £500,000 new steel-framed hangar beside the first one and another slip-way laid alongside with new workshops and sheds. A six acre plot to the north of the railway was secured as a drill ground and may have been used for light aircraft at times. To this day, north of the industrial estate, between the Ouse and the railway can be seen the raised floor section of the former Miles Aviation workshops that serviced the aircraft. The East Sussex skies must have provided an

inspiring vista together with Royal Flying Corps airfields at Telscombe Cliffs, St. Anthony in Eastbourne and Polegate RNAS airship base.

Four Short 184 float-planes were the first incumbents at Newhaven, then six Dover type 184s followed patrolling the Channel for 4-5 hour periods. Various flights and squadrons were to operate from RNAS Newhaven, but no major activity or incidents are recorded from there, although four pilots died in accidents. After the end of the War in 1918 the now RAF site was gradually wound down and it closed officially in May 1919. The station closed finally in the autumn and during 1920 the buildings were demolished and auctioned off.

From the early 1920s Captain David Dale operated horse racing stables from the old biplane hangars after the RAF moved out. It was a familiar site to see the horses and the Chailey Heritage boys exercising along the shoreline.

The Tide Mills today

In November 1983 the *Sussex Express* newspaper carried a brief report of a public enquiry into the 47 acre Tide Mills site. The Newhaven Society called 11 witnesses to state their belief that the site was common ground and had been used for recreation purposes over the decades. The County Council staged the public enquiry in response to the Newhaven Society's application to have the land registered as a village green or town green. It had been variously mooted in the past to develop a gravel pit or a holiday camp on the land owned by Sea Containers whose current case was that people do not, as of right, have access to the land other than on public footpaths and that permission of the port manager should be sought before visits to the Tide Mills were undertaken.

Today Mill Drove, the former Tide Mills high street, remains as it was concreted during WWII to take tanks and other military vehicles to the shoreline for the Dieppe Raid and D-Day embarkation. The Tide Mills themselves slumber as an area of intrigue, recreation and as a nature reserve. A sombre question mark however hovers over the area as pressures to develop Newhaven port facilities become imperative.

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This article is a revised version of the Newhaven Maritime and Local History Society Occasional Paper No. 4.

THE GYPSUM EXCAVATIONS AT MOUNTFIELD

Don Cox

Whilst there have been several mentions of the overhead cable railway at Mountfield in our newsletters I have noticed the absence of any information on the product that it carried. Thus I was pleased that when I was recently given a book on the History of BPB Industries I found it contained some information on the gypsum works at Mountfield. The following is based on information taken mostly from that book.

The present workings at Mountfield are at Map Reference TQ 720194 with that at Brightling at TQ 677217.

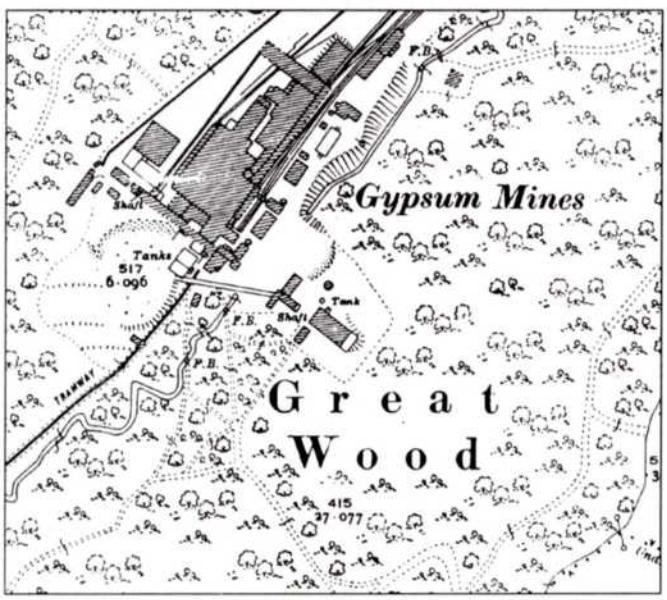

Fig. 1 The Mountfield Gypsum Works, 1930 (25" O.S. Map, reduced)

There was a long history of mineral working in Sussex as shown by the iron ore extraction, at its peak in the sixteenth and seventeenth centuries. The discovery of gypsum in the nineteenth century appears to have been accidental. It is only approx 4 km (2½ miles) from the ironworkings of Ashburnham furnace and the forge at Penhurst. There was to be a meeting of the British Association for the Advancement of Science in August 1872 in Brighton and a geologist, Henry Willett of Brighton made some borings in the Councillors Wood area at Mountfield. The reason for the borings is not clear but he was preparing a description of the geology of that area for the meeting and he did present his findings. Perhaps he was really looking for coal but the only discovery of any commercial importance was that of gypsum.

Having made his presentation to the learned society and taken them on a visit to the site, no more was heard of Henry Willett. However the next year a contractor was found on the site and at Archers Wood nearby a similar borehole was made. Soon work was being carried out by the Diamond Rock Boring Company and Cornish miners were used. In 1876 the deposit of gypsum was found to be promising and the Sub-Wealden Gypsum Company was formed to exploit the find.

The lease for the Mountfield site was purchased together with the existing buildings and works for £5,326. The first meeting of the Company was held on 15 May 1876 in the Paper Makers' Association rooms at Cannon Street, London. William Joel Kemp, a coal factor from Croydon, also noted as a chemist and inventor, was one of the 21 shareholders and it is he who is generally regarded as the founder of the business. It was decided to buy a winding machine and to sign an agreement with the South Eastern Railway Company for building a siding to the mine. Within a year substantial works had been built, complete with steam engine and locomotives. A capital of £26,500 had been accumulated and the works were reported as being capable of producing 100 tons of plaster a week with most of that going to the Dorking Lime Company and the rest being sold to the building trade at 30s to 45s a ton. However the accounts for the first year showed as total sale of gypsum and plaster worth £3,886 and a profit of £7 18s 10d (£7.94). Thus the output was considerably lower than the quoted capability.

Four kilns were built for baking plaster and two for burning cement but despite large sums being spent on experimental work there followed a period of several years when the product quality varied greatly. However a case of samples was prepared for the Paris Exhibition of 1878.

In that same year there was apparently talk of a system of constant sampling to test the plaster when it was being processed. During this period there were also financial problems and after failing to obtain a bank overdraft, £8000 was raised by an issue of debentures.

In order to raise extra revenue, the by-products of the adjacent stone and the part of the extracted gypsum that was of inferior quality were sold as road making stone and for manure for hop fields respectively.

Financial problems continued in 1879 when the company saw a loss of £814, mainly caused by competition from other companies in the Midlands who had gained concessions from the railways to transport their products to the south. Employees took

a cut in salary, Joel Kemp did not take his commission on sales, royalties to the owner were reduced, and even the company auditor, Mr. Zeal, took a reduced fee.

The following year was not much better and a further cut in wages was accepted by the workforce. However the company did make a small profit and this was followed by a profit of £1,998 in 1881. Nothing is reported of the wages to the workforce who were averaging £1 a week at this time.

In 1882 the Company's finances had improved enough to pay its first dividend (of 2½%) to the shareholders. The profits also helped to finance some improvements to the buildings, two boilers (from a steam yacht), a new underground drift and a new system of rope haulage.

An interesting comment is made in the 1885 report by Mr Finlay, the managing director of Sub-Wealden, to the other directors where he states that a rival company, Cafferata at Newark used millstones for grinding their gypsum whereas at Mountfield "superior" edge runners where used. He also claimed that their plaster was 20 per cent stronger than the "cheap boiled rubbish from under-cutters" in the Midlands. However Mountfield also used burr stones for grinding at a later date.

A building slump started in 1886 and lasted for five years. This caused the company fortunes to fall to a low ebb, almost to the point of collapse. However the directors did allocate £25 to Joel Kemp in 1888 for experimentation in the extraction of sulphur. No further reports are made on this work but soon after that Joel Kemp became company secretary and salesman. It is generally reckoned that his efforts saved the company. As company secretary he was left to sort out the finances. He found unpaid bills and on two occasions, such was his determination and his willingness to make sacrifices, he paid the men's wages out of his own pocket. As salesman he visited customers to find out why, with a lower price than competitors, sales were not being made. From these visits he discovered that the main reason was the indifferent quality of their plaster with many cases of it being over-burnt. There were even cases of heavy claims for compensation. Sales dropped from £10,000 in 1881 to less that half that in 1891.

More experimentation followed and the method of production was changed. By mixing a semi-burnt hemi-hydrate plaster with a dead burnt, a new product was created. The great benefit was that this product used a major part of the extracted material that up to that time had been discarded as unsuitable for processing. Thus all the material extracted could now be used. That would mean a cheaper product and one that by mixing the two plasters gave a product that had a gradual setting time.

This was to prove popular with the users. In a competition to find a name for this new product the best suggestion appeared to be Parasite but this was re-phrased to Sirapite.

Fig. 2 Handbill issued by the Sub-Wealden Gypsum Company at the end of the 19th century. The reverse side advertises Sirapite Fire-Proof Plastering.

In 1893 Kemp was appointed general manager at a salary of £300 per year plus 10s a week for the use of his pony. This last part was strange as it was not long before not only did he became one of the first people in Sussex to own a motor car and have a chauffeur to drive it but he also paid for the chauffeur out of his own pocket. Back to the 1890s and we find Kemp being congratulated by the auditor on the way he had brought the company back into splendid shape.

In that period there were thirteen kilns either built or under construction. Kemp was continually urging the directors for further improvements. Included was a boiling pan for the fines from the edge runners but this was not installed until 1901. This proved so successful that a second pan was immediately started.

It is very interesting that at around this time money was put aside for a pension fund with the first pension

Fig. 3 Aerial View of Mountfield Gypsum Works
from recent photograph supplied by British Gypsum Ltd. Head Office at Loughborough

(of 7s 6d a week) being paid in 1899. Also an allowance was put aside for the wife of a serviceman in the Boer War while her husband was away fighting in South Africa.

By 1902 Joel Kemp had the title of Company Secretary and on 30 October of that year decided to retire. He was then 62 and his place was taken by his son Harry.

With a view to exploiting the Sirapite product market it was suddenly decided in 1903 to amalgamate the Sub-Wealden Company with the Kingston Gypsum Company of Kingston-on-Soar in the Midlands. This company had been started in 1880 by Lord Belper and by 1903 was struggling to survive. The amalgamation gave advantages to both companies. The Midlands company gained a new product and the Mountfield company new markets in the Midlands. Shareholders in Sub-Wealden received two shares in the new company for every one allotted to shareholders in the Kingston company. The new company was called Gypsum Mines and incorporated on 4 February 1903 with an issued capital of £83,257 in fully paid shares and £20,000 in debentures. Harry Kemp carried on as Secretary and Lord Belper was the Chairman of the joint company.

The advantages of the joint company were soon realised with the building of new equipment at Kingston to produce 500 tons of Sirapite a week. The first ton was sent out from Kingston in September 1903 i.e. eight months after the merger. This was selling out of the works at £1 a ton and provided a useful income particularly as it was using what was previously unwanted material.

Business continued to flourish so that in 1907 the Company exhibited at the Building Trades Exhibition for the first time. At the same time the company looked around to acquire other companies and in 1909 decided upon an old established firm of J.C. Staton & Co. This brought together two great names of gypsum. The Staton business was started in 1838 and was a family concern, not only in the directors, but also in their employees, who spent many years working for the company and were frequently followed by their sons. The respective company names were continued. There was a serious strike at Staton in 1910 over the employment of a non-union worker but this did not affect Mountfield.

Following the first World War times were difficult and the joint company formed their own transport company E.B.N. Atkins to distribute their products. The post war building boom helped the company but prices had risen with the workforce now getting double the wages received prior to the war; both based on a 54 hour working week.

At Mountfield a new drift was put down to explore the lower seams and, having leased their land for 45 years, the company bought the first of the huge tracts of land it was later to own in the area. The company in 1973 owned the mineral rights to 45 square miles of Sussex.

Gradual expansion took place such that in 1925 there were 15 kilns in operation with the number growing to 26 in the 1930s. However by 1970 this had been reduced to 14 due to the improvement in efficiency of the process.

With the expansion in the 1920s and early 1930s the rapid development of the trade in Sirapite meant that on 4 February 1930 it was reported to the board of directors at Mountfield that the Company had produced the millionth ton of Sirapite. It was also at this time, 1926 in fact, that the houses in Eatenden Lane, Mountfield were built as company houses with the intention of Harry Kemp to form a 'garden city in miniature'. Great plans, but one that did not develop very far.

In 1935 Mountfield, as part of The Gypsum Mines group, amalgamated with British Plaster Board Industries. This gave the Company more capital and in 1945 a new adit was driven at Mountfield which meant that output expanded and more plant was built. Soon the Brightling Estate, near the original Egerton Estate was acquired. This proved to be of highest importance and after a long period of exploration a mine was opened there in 1963 with that at Mountfield declining. In 1963 there was considered to be enough gypsum to last for 70 years and this necessitated the construction of the aerial rope system to transport the minerals over 3½ miles to the Mountfield processing plant (Figs. 4, 5 & 6).

The gypsum seams are at the base of the Purbeck beds and at the top of the Portland sandstone series. There are two main east-west faults, and four seams, only the top and bottom of which are being worked. The seams are on a heavy gradient, which has caused many difficulties.

The gypsum from Brightling, which varies in quality is passed by the conveyor to a heavy media separation plant at Mountfield.

Before the Second World War the Mountfield Works was producing about 2,500 tons per week. The war meant that nationally there was a shortage of gypsum due to the loss of that previously imported. However Mountfield responded and were assisted with the help of prisoners who were drafted into the industry. Mountfield was employing about 250 German prisoners at one time. Following the war, the use of plaster board as opposed to lath and plaster for all ceilings meant that demand greatly increased and improvements were made at Mountfield to the method of mining the gypsum.

By 1951 output had increased to 12,000 tons per week.

During the 1960s there was a large investment in mechanisation which greatly improved the output at Mountfield. However this was at the expense of the labour force which required 450 men to operate the plant in 1951 but was reduced to 120 men in 1969 to operate both the Brightling and the Mountfield mines.

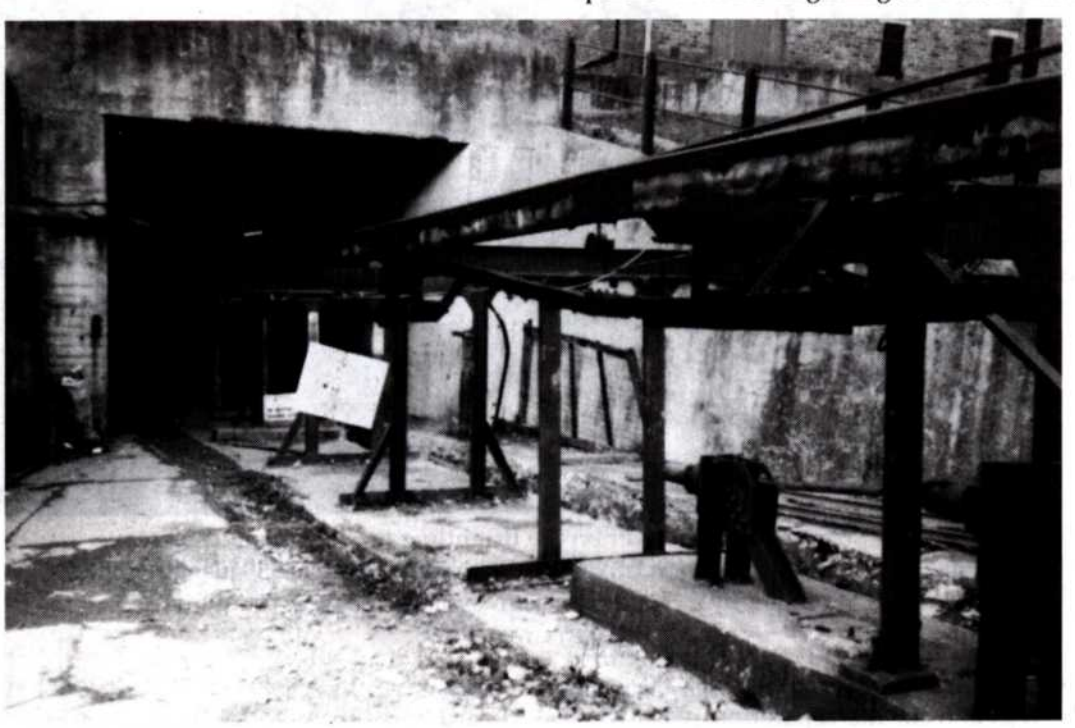

Fig. 4 Aerial cableway connecting Brightling Mine with the Mountfield Works, emerging from the mine at Brightling, taken in 1988
(W.R. Crawshaw)

Fig. 5 Steel fabricated change of direction station on the Brightling to Mountfield cableway, taken 1988. (W.R. Crawshaw)

Fig. 6 Steel fabricated tower on the Brightling to Mountfield cableway, showing the typical terrain traversed. Photograph taken 1988 just before its replacement by a continuous conveyor belt costing £6 million. (W.R. Crawshaw)

In 1970 the average output was running at 9,000 tons per week. The rejects from the separation plant were mainly shale, dolomite and anhydrite and these amounted to about 15 per cent of the mine output. In 1970 about 50 per cent of the gypsum was supplied to Portland cement manufacturers, 25 per cent to plaster board manufacturers and the remaining 25 per cent was bagged at Mountfield plaster works for direct sale.

APPENDIX A

Gypsum – a transparent or white mineral, sometimes tinted with impurities: found in beds in the ground as an evaporite. It is used in the manufacture of Plaster of Paris, cement, paint, school chalk, glass and fertilizer.

Composition:- hydrated calcium sulphate. $CaSO_4.2H_20$

As can be seen from the chemical name there is water present in Gypsum when found in natural deposits. The water content can be removed by different heat processes to arrive at the required end product.

a) When heated to greater than 650°C all the water is removed to leave insoluble anhydrite (anhydrous calcium sulphate) which is used as a filler in paper making. It has no setting properties.

b) When heated to below 300°C, all the water is removed leaving what is called a soluble anhydride (anhydrous calcium sulphate). This is used in the chemical industry as a drying agent (Drierite).

c) When heated to between 200 & 300°C it is partially dehydrated and yields hemihydrate in the form that we know as Plaster of Paris: so called as it was first made at the quarries at Montmartre near Paris. Plaster of Paris is slightly soluble in water and on mixing with water it rehydrates, starting to crystallise in about 5 minutes. This gives the initial rapid set. The crystalline form slowly changes to the form of gypsum and in doing so slowly expands, a useful property for mould making and gap filling. Other chemicals can be added and processed to produce other cements, such as Keene's and Parian with different setting properties. Plaster of Paris is also used in cement and used to be added to lime and sand for some plasters on walls.

Alabaster is a fine grained variety of gypsum that is used for vases, statues etc.

Blackboard chalk is mostly calcium sulphate with some additions to improve writing qualities. It is not natural chalk.

French chalk and talcum powders are something quite different and are basically hydrated magnesium silicate.

Chalk, as we know it as part of the countryside comprising the Downs, is calcium carbonate; a chemical with quite different properties and promoted the building of the lime kilns that existed in the county.

APPENDIX B

The existence and use of gypsum or plaster has been known for many years and for a variety of purposes. The Romans used a plaster to line some of their aqueducts and some country houses in this country have plaster floors. These uses are possible because once gypsum has been mixed with water and set hard, it will remain hard and cannot be dissolved by water.

The history of gypsum, and in particular with regard to Mountfield, is tied in with the development of plaster board for the lining of walls inside buildings.

From the wattle and daub process for making walls for the interior separation of buildings into smaller rooms, came the lath and plaster process. This lasted to well into this century.

In America two people, Fred Kane and Augistine Sacket, were trying to make a substitute for wood in packing cases using layers of paper with each layer of paper covered in tar. This was a flop due to the heat melting the tar during transportation in hot conditions. So it was suggested that plaster of Paris be used instead of the tar. It proved successful in that it provided a good stiff board. Then came the idea that this could be used as a substitute for lath and plaster on inside wall coverings. Thus patented in America on 22 May 1894 Sacket and Kane built plant to manufacture and sell the board. This developed from the original boards of multi layers of paper in board sizes of 32 x 36 inches to about 1912, when boards similar to those we know today, but still of that same small size, were made. Of course not only did they have to make the boards but they had to convince the builders and their plasterers to use them. This was more difficult in this country and it was not until just after the First World War that plaster board was produced here. As this was a time of expansion of the Mountfield works they must have supplied some of their product for that process. However it was a long time before the building industry really accepted plaster board and gave it wide use.

ACKNOWLEDGEMENTS

Most of the historical information is taken from *The History of BPB Industries* which is based on research by David Jenkins. This was published in hardback book form in 1973 by BPB Industries Limited for internal circulation only. The use of this information is with the permission of British Gypsum Ltd., whose head office is at Loughborough.

Alan Brown supplied other information on the chemical side and corrected my interpretation of his original notes. This forms the basis of appendix A.

CASUAL WARDS AT UCKFIELD UNION WORKHOUSE

Ron Martin

THE WORKHOUSE

The Board of Guardians of the Uckfield Union Workhouse was formed in 1835 and a 6.1 ha (15.1 acres) site was acquired at Ridgewood at the east side of Lewes Road (map reference TQ 477196). Plans were drawn up in 1837 for a Workhouse for 350 paupers to the designs of W.E. Kendall, architect, of Suffolk Street, Pall Mall, London to be built on this site[1]. This comprised a three storied structure in Maltese cross plan form. A full range of facilities was provided including Male and Female accommodation, Dining Hall and Kitchen, Offices and Board Room, Nursery, Washhouse, Disinfectant House and Workshops[2]. In later years this building was known as High View House, a name now encapsulated in the name Highview Lane being the access road to the recently built housing estate.

THE CASUAL WARDS BLOCK

The Casual Wards Block was built between 1899 and 1910[3]. This was surveyed by the writer in 1984 at which time High View House had already been demolished and the Casual Wards Block was in a very derelict state and awaiting its own turn.

DESCRIPTION OF THE BUILDING

The main part of the building was 26 m (85'4") long and 7 m (23') wide with a central corridor and with projections over the "Stone-Breaking" Cells and the Bathroom. The Female and Male parts were strictly segregated, the only access between the two halves being through a small hatch door. The Male end at the east comprised 7 Sleeping Cells each 1.4 x 2.4 m (4'7" x 7'10") along the south side of the corridor for overnight occupants with seven similar cells along the north side of the corridor for longer stay occupants and each with an adjacent "Stone-breaking" Cell. Each cell was fitted with a door from the corridor, had a high level window, and was equipped with permanent hooks for the suspension of hammocks. There were no doors between the Sleeping Cells and the "Stone-breaking" Cells but in the north external wall of each cell was an iron hatch, presumably for the loading (or unloading) of the stones.

In the central part there were two entrances at the south side, one for each sex. Off the Male Entrance Hall there was a room for the Attendant equipped with a fireplace. On the north side of the corridor there was the Men's Bathroom containing two baths and beyond that the Drying Room built over the basement Boiler Room. There was a large chimney stack for the boiler flue, 1.14 m x 0.68 m (3'9" x 2'3") which seems unduly large to take a single flue but there is no evidence of any other fireplace which could have used this stack.

At the Female end there were two Sleeping Cells each for two occupants and a Store. There was apparently no need for a Female Attendant, neither apparently, were any baths provided for the Females. At the west end was a large room 3.75 x 8.2 m (12'4" x 26'11") designated "Spare" on the pre-1948 plans and showing high level windows on both the north and south sides[2]. This room, when surveyed in 1984, was fitted with external double doors at the north side and had presumably been adapted for use as a Garage. Close to the west end of the building and linked to it with a short corridor was a Female Toilet Block comprising two W.C. Cubicles and two wash basins. At the equivalent east end was a similar Men's Toilet Block but this had been demolished before the survey was carried out.

The construction of this block was of good quality solid brick walls the external walls being mostly 340 mm (13 ½") thick and finished externally with local facing bricks in English bond and internally with a fair face. All external opening were provided with segmental arches in yellow bricks and in each gable end was a bullseye window.There were oversailing courses at the eaves and gables. The windows generally were opening casements with double-hung sashes only to the Attendants Room. The bullseye windows had iron frames with radiating glazing bars and a diamond centre feature. The roof was gabled and covered with Welsh slates and there were two long timber lantern lights, one each over the Male and Female main corridors.

Looking at this bleak building one realises what a hard life these itinerant tramps led in the early part of this century, when they came in to places like this for a bath and food and a night's rest in exchange for some menial work. It is a salutary thought to consider whether today's homeless would tolerate such conditions.

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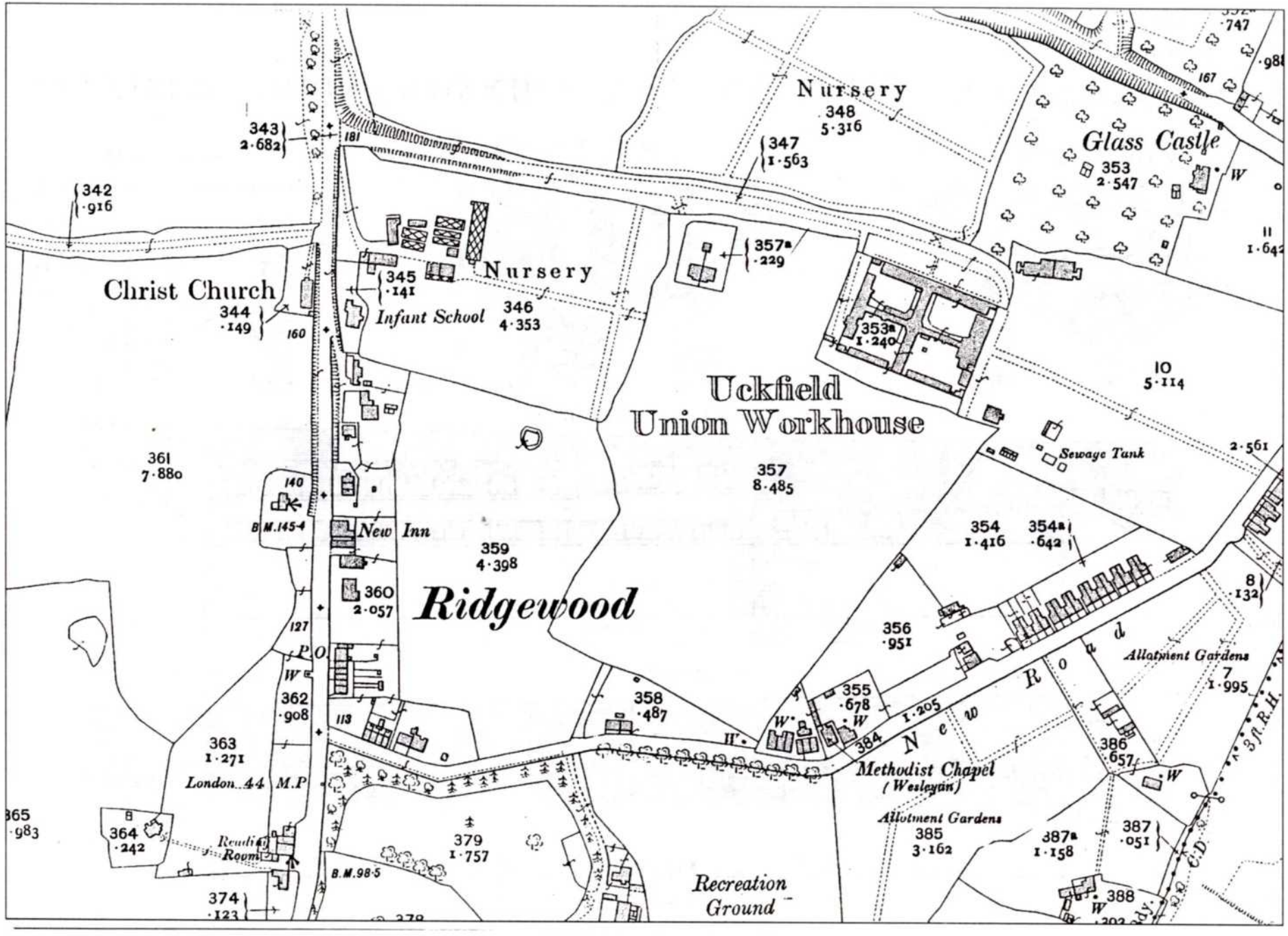
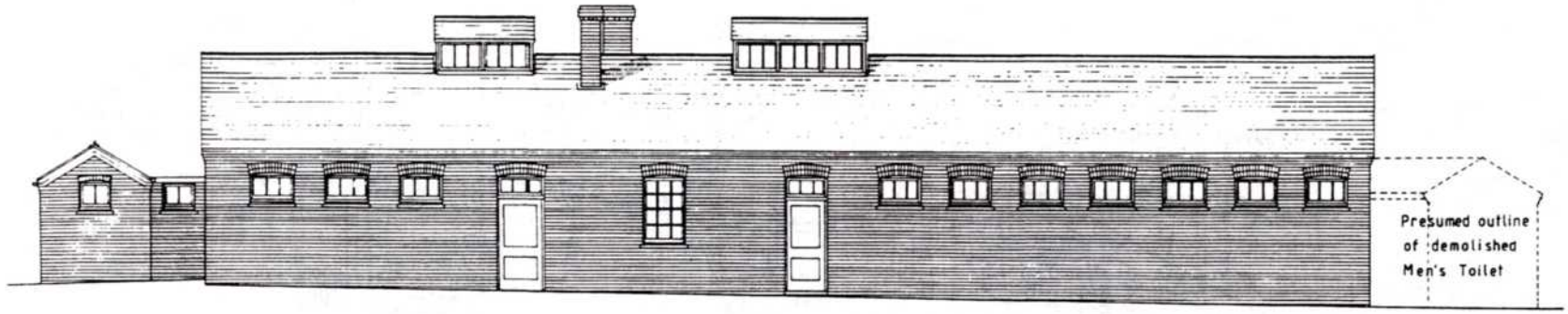
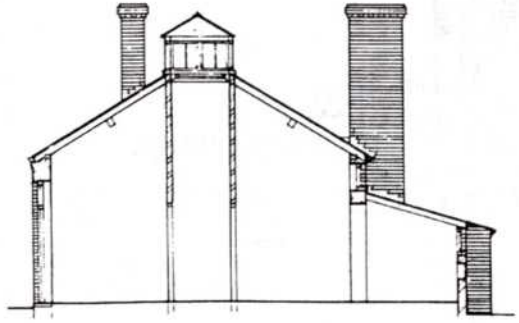


25" O.S. Map Sheet XL8, 1910



SOUTH ELEVATION

NORTH ELEVATION



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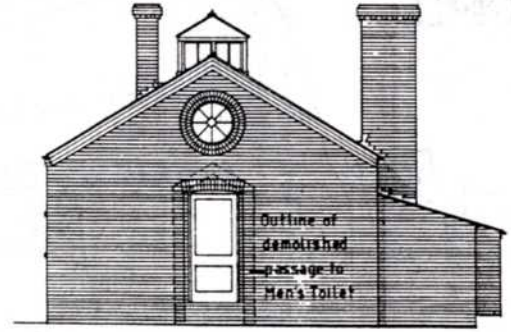
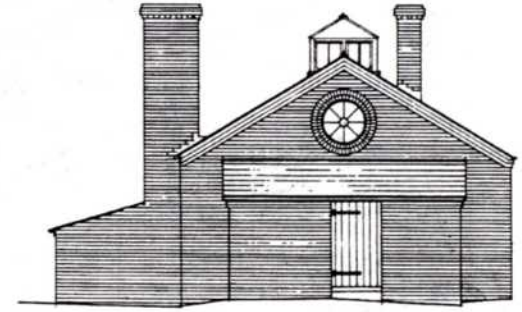


EAST ELEVATION



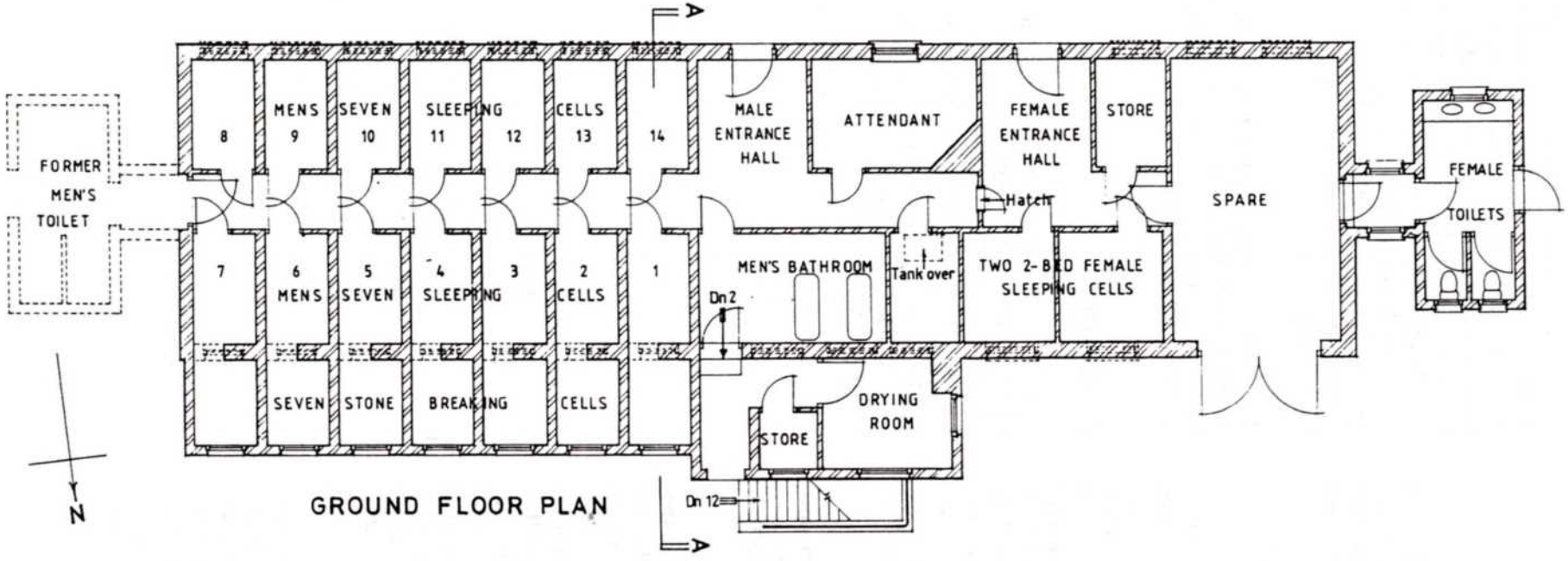
WEST ELEVATION

SCALE

0 1 2 3 4 5 6 7 Metres

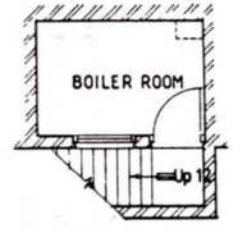
UCKFIELD UNION WORKHOUSE *CASUAL WARDS*

Surveyed 1984



UCKFIELD UNION WORKHOUSE

CASUAL WARDS



BASEMENT PLAN

SCALE

0 1 2 3 4 5 6 7 8 Metres

Surveyed 1984

BREAD OVEN AT 15 WESTERN STREET, BRIGHTON

Ron Martin

In the course of renovation work at No.15 Western Street, Brighton a bread oven was uncovered in the basement. This property was built as a semi-detached pair (with No.16) between 1808 and 1821[1] and is three stories high with a projecting bay to each property and a parapet. From 1822 - 1850, No.15 was occupied by William Hearsey a baker, and from 1852 - 1862 by Henry Ewer, a bread and biscuit maker. It was known as No.2 Norfolk Street until 1833 and No.9 Western Street, until 1939. Presumably Henry Ewer died and his widow Elizabeth took over the business and carried it on until 1875. In the 1876 Directory James Smith is listed as the occupier and from 1877 to 1916 Ben Bishop, as a baker. For the next two years it was used as a registry office and from 1920 to 1940 by a Mrs. Otway, a hairdresser, then by Harold Ruddick & Co, mechanical engineers and for a few years by Mrs. Wagstaff) an antique dealer. Since 1964 it has been occupied by various restaurants, the Cafe Mignon, the Safari Room, Au Pied du Cochon[2] and latterly Le Grandgousier.

The adjacent No.16 was occupied by a milliner and dressmaker until 1850. It then became the Grosvenor Arms and was an eating house 1859-69. From 1871 it has been the Western Star public house.

The oven is built in to the front external wall of the basement extending out under the pavement. It is of the side-flue design with the brick lined oven about 8'6" (2.59 m) wide and 11'6" (3.57 m) long and 12"-15" (0.31 - 0.38 m) high. The main cast iron oven door is at the front. The fire box with ash chamber under is at the right hand side with the flue entry directly into the oven. The exit from the oven is at the left hand side and is connected to the brick flue which runs up the party wall. There is a damper at the base of the flue comprising a circular plate sliding on three guides above would have been a soot door. Above the fire box is a cast iron water tank.

In use these ovens would have been fired with coal until it was suitably hot when the fire was raked out. The oven would have been cleaned and the bread inserted using a wooden peel, a form of flat shovel. As the oven cooled it would have been used for biscuits. The use of water in the oven is necessary in order to produce a glaze on the bread. The tank would have been used to store hot water used in the mixing process, in cold conditions.

Due to the location of the oven extending under the pavement it seems probable that the oven was installed when the property was first built, the first occupier being a baker. It also seems probable that the oven was later converted to a side flue pattern maybe in the Ewer era and this is when the south wall was cut back to provide access for firing. Prior to that the oven would probably have been a faggot oven where the fuel was inserted directly into the oven and burnt and then when sufficient heat weas created, raked out and the bread inserted.

It is most satisfying to find that this oven has been restored to something like its original condition and left for customers asnd visitors to admire and imagine the life of as baker 150 years ago.

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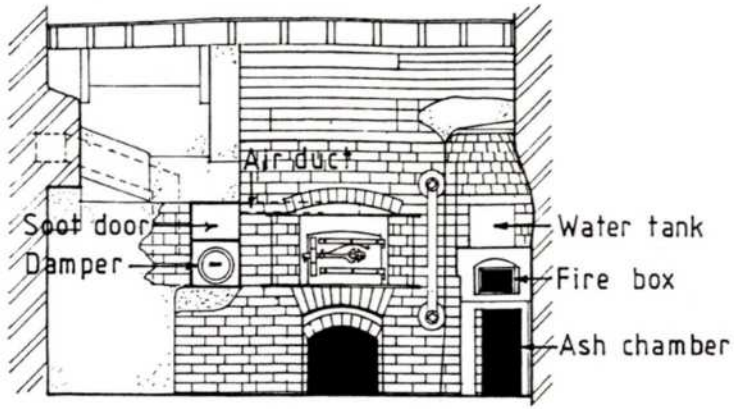
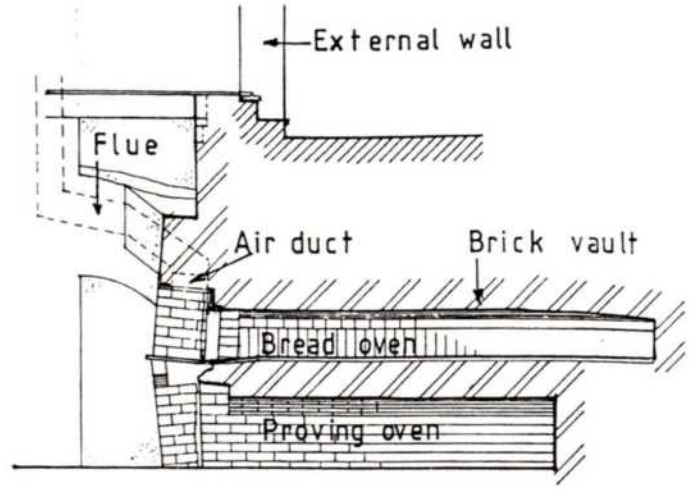


ELEVATION



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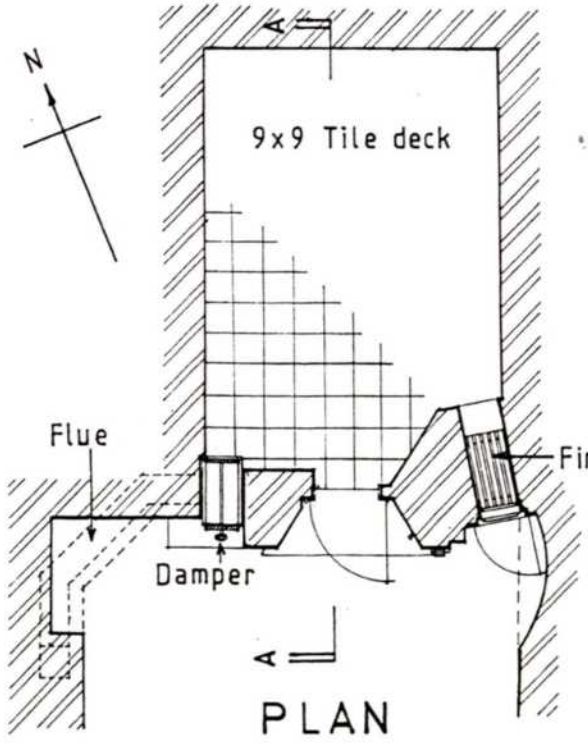

PLAN

SCALE

0 1 3 4 5 10 15 Feet

0 1 2 3 4 5 Metres

15 WESTERN STREET

BRIGHTON

SIDE-FLUE BREAD OVEN

MEDIEVAL WATER MILLS

Don Cox

For many years I had thought that there must be information on water mills in the many manorial records in the record offices. I have extracted references to mills from the Sussex section of the Domesday Book translated by John Morris and published by Phillimore in 1976 which shows that there were many mills in Sussex in 1086.

I was also pleased to receive from Dr. Scott who lives at Fairthorpe near Uckfield the following that he had found during research into the local history of that area.

Dr. Scott is no stranger to milling as he was employed in that industry working with 'modern' roller mills. Before you rush to the record offices I should warn you that much, like the details that follow, are written in Latin : this is medieval Latin and not the Latin that some of us were taught at school.

Dr. Scott comments that "the original documents are in an abbreviated form of medieval Latin that requires an expert to translate". Also the technical terms are difficult. For example the word for 'axle' is FUSILLUS in the original and on consulting the *OED* seems to relate to a tubular element and implies perhaps a hollow axle. The 'water wheel' was ROTEM MOLENDINI; the 'cog wheel' was COG WEGHAL; and the 'middle spindle' was MEDLESPIN.

The 13th Century Manorial Corn-Mill at Maresfield

In the late part of the thirteenth century the old Aquila holdings of Maresfield and Ashdown were granted by Peter of Savoy to his niece Queen Eleanor, whose son shortly after ascended the throne as Edward 1.

The new King was an efficient legislator and his natural interest in the area led to a burst of documented surveys and of bailiff's accounts still held in the Public Record Office and now providing a solid basis for early history of both the Manor and the Forest.

Our present interest is in Maresfield with the Saxon hill settlement lying near the old Church and the Norman Manor-'Curia' lying at the Mill-Pond, half a mile SE of the Church. Within the Maresfield documents, events relating to the Corn-Mill are to be found for the most part among sections describing the Manor property and often in specific long paragraphs headed "Custos Molendini" or "Custos Domorum".

Extracts relating to the Corn Mill are as follows:-

		Doc. Ref. & approx. date
Wood sold from forest		
300 "boul'" forest wood sold to the carpenters of Maresfield Mill		13EI (1285)
Care of House		
Thatcher to reroof grange and Mill		19EI (1291)
Repair of Pond embankment		19EI
Care of Corn Mill		
Repair of Dam	3 days	19EI
Repair of water gutter	10d	
Repair of gutter cover	10d	
Nails bought	4d	
Handling carriage	3d	
Bronze packing plate beneath main axle	12d	
Another hoop	6d	
Care of House		
Boards to repair Mill-wheel and chapel	12d	20EI (1292)
Care of Corn Mill		
Repair to main Axle	6d	20E1 (1292)
7 yds Pond Embankment renewed	17s 6d	
Repaired Embankment in 3 places	4s	
Repairing Water Channel to Mill-wheel	6d	
New Cog-wheel	3s 8d	
Handling and carting	2d	
Repair to partition wall of mill; 100 nails	3d	
Cleaning of Ditch around the Mill	1d	
Care of Corn Mill		
Piece of bronze to pack Mill Spindle	20d	21E1 (1293)
New Iron Hoop for Mill wheel	6d	
Repair of Middle-Spindle	7d	
Planks below park to help in mending Mill Wheel	7½d	22E1 (1294)

Note 1 Throughout this period from 1285 to 1294 the manor rent of the Mill remained at £4-13s-4d.

Note 2 This mill was likely to be the first Maresfield mill but a second pond appears to have been made in the next 100 years and a fulling mill is known to have been installed later at Maresfield. The present corn mill is of much later date but its site cannot be more than a few yards at most from the original corn mill site. A gun-powder mill existed about half a mile south of the corn mill in the early nineteenth century.

List of all Sussex mills in the Domesday Book

The numbers preceeding the place names are the chapter numbers followed by the item number in that chapter. These are based on those used in the book from which the information was taken.

1	Bosham	8 mills at £4 less 30d
2-1a	Malling	5 mills at £4 10s
2-2	Wootton	1 mill at 39d
2-5	Pagham	a mill at 10s
2-7	Lavant	a mill at 6s
3-2	Henfield	a mill and fishery are lacking
3-8	Wittering	1 mill at 30d
3-9	Preston	a mill
5-2	Steyning	4 mills at 47s
6-1	Bosham	3 mills at 14s
6-2	Elstead	a mill at 4s
8-16	Land at Battle Church	2 mills without dues
9-1	Hooe	1 mill at 7s
9-2	Catsfield	1 mill which serves the Hall
9-86	Henhurst	1 mill at 2s
9-89	Berwick	1 mill at 10s
10-1	Pevensey	1 mill at 20s
10-2	Eastbourne	1 mill at 5s
10-3	Beddingham	1 mill at 8s
10-22	Firle (West)	2 mills at 0s
10-26	Jevington	1 mill at 8s
10-31	Ratton	1 mill at 4s
10-56	Sessingham	1 mill at 10s and 500 eels
10-60	Hartfield	1 mill at 4 s and 350 els
`0-65	Worth	1 mill at 9s
10-66	Horsted (Little)	1 mill at 8s
10-67	Wootton	1 mill at 20s
10-95	Chiddingly	1 mill, with miller at 4s
10-105	Brambletye	1 mill at 2s
10-111	Sheffield	1 mill at 40d
10-117	Rotherfield	1 mill at 30d
11-1	Chichester	a mill at 5s
11-2	Arundel	a mill which pays 10 measures of wheat and 10 measures of rough corn
11-3	Singleton	2 mills at 12s 7d
11-3	Chichester	1 mill at 40d
11-5	Lavant	1 mill at 7s
11-6	Harting	9 mills at £4 18d
11-7	Trotton	1 mill at 12s 6d
11-8	Treyford	1 mill at 30d
11-9	Chithurst	1 mill at 8s
11-10	Stedham	3 mills at 30s
11-11	Cocking	5 mills at 37s 6d
11-14	Selham	1 mill at 10s
11-16	Todham	$^1/_3$ part of a mill at 14d
11-18	Petworth	1 mill at 20s
11-19	Tillington	1 mill at 20s and 120 eels
11-20	Grittenham	1 mill at 10s
11-21	Duncton	4 mills at 38s
11-22	Sutton	3 mills at 13s 9d
11-23	Barlavington	2 mills.....meadow
11-26	Stopham ?	1 mill
11-27	Burton	1 mill at 11s
11-30	Westbourne	4 mills at 40s
11-30	Warbleton (in Hampshire)	1 mill at 10s
	ditto	1 mill at 10s
11-35	Lordington	a mill at 30d
11-39	Fishbourne	2 mills at 40s
11-41	Mundham	1½ mills at 6s 8d
11-42	Mundham	1 mill at 5s
11-43	Hunston	1 mill at 20s
11-44	Birdham	1 mill at 20s
11-48	Storrington	2 mills at 11s
11-49	Storrington	a mill at 5s
11-52	Parham	1 mill at 30d
11-53	Nutbourne	2 mills at 25s
11-55	Pulborough	2 mills at 11s
11-59	Lyminster	a mill at 5s
11-63	Nunminster ?	a mill at 30d
11-74	Wepham	a mill at 30d
11-78	Bignor	2 mills at 28s
11-82	Barnham	1 mill
11-92	Offham	2 mills
11-105	Westhampnett	1 mill at 5s
11-106	ditto	1 mill at 3s
11-110	Merston	3 mills at 7s
11-111	Runcton	2 mills at 12s 6d
12-3	Iford	2 mills at 23s
12-6	Ditchling	1 mill at 30s
12-27	Pershing	½ mill at 40d
12-28	ditto	½ mill at 13s 4d
12-30	Poynings	2 mills at 12s
12-36	Hurstpierpoint	3 mills at 9s
12-39	Keymer	2 mills at 12s
12-42	Plumpton	2 mills at 20s
12-43	East Chiltington	½ mill at 15d
12-48	Barcombe	3½ mills at20s
13-6	Truleigh	2 mills at 65s
13-10	Steyning	1 mill without dues
13-13	Sullington	1 mill at 6s
13-20	Applesham	1 mill at 6s
13-23	Wantley (Henfield)	1 mill at 20d
13-30	Broadwater	1 mill at 7s
13-38	Sompting	1 mill at 3s
13-43	Lancing	1 mill at 8s
13-49	Thakeham	1 mill at 3s
13-51	Washington	1 mill at 15d
13-52	Storrington	1 mill at 3s
13-56	Buncton	1 mill at 2s
14-1	Woolbeding	1 mill at 10s
14-2	Iping	1 mill at 3s 4d

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