

Timeline for Saltaire Mill

Salt Family & Charles Stead Years

1877 to 1892

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5 January 1877¹³ – The mill was closed all day for the funeral of its founder, Sir Titus Salt. 19 February 1877⁵

ALARMING EXPLOSION AT SALTAIRE MILLS.

About half-past ten yesterday morning an explosion occurred at Saltaire Mills, which, fortunately, resulted in no more serious manner than the destruction of property. Underneath the yard of the works, and near the side of the Midland Railway, is an economiser used for heating water before it passes into the boilers. This consists of a series of 360 pipes, each 10ft. high, is about 20ft. long, and the height of the flue is about 10ft., its width from 12ft. to 14ft. The cold water is admitted at the end furthest from the boiler fires, and at the other end, where it comes out, there was a safety valve. The economiser has been out of use for some short time for repairs, and in the meantime another flue, which would answer the purpose, was in use. On Saturday the economiser was filled with water, and the flue in which it was fixed again used, the object being to find out a leakage which was supposed to exist, and no feed water was consequently being drawn from the economiser. The safety valve was not weighted, and it was observed some time before the explosion occurred that steam was escaping freely. Suddenly, however, and without any warning that anything was wrong, the main portion of the economiser exploded, and threw the brickwork and large stone slabs which covered the flue into the air, some stones weighing several cwts. being precipitated through the windows into the mill, and this, together with the dense clouds of ashes, smoke, and steam, which rose to a great height, filled the occupants of the rooms near with awe; and in the basement, which is occupied by twisters, the workpeople rushed to the door and made their escape. No one was hurt by the flying wreck, although there were some narrow escapes. One little girl was descending some steps into the boiler-house with her father's dinner when a huge coping-stone fell across the steps only a few feet above her, where it fortunately lodged. Stones weighing from one to two tons each were smashed or removed from their places, while the economiser itself, weighing many tons, was broken to pieces, and large pipes torn into fragments. By the explosion about 2,500 hands had to cease work for the day, but steps were at once taken to repair the damage, and last night a number of workmen were busily employed in the work of restoration, and it was hoped that by this (Tuesday) morning things might be so arranged that the engines could resume work.

9th July 1877⁶ -

STEALING CIGARS, &C., AT SHIPLEY.—Thomas Ambler was brought up at the West Riding Court, on Monday, charged with stealing a box of cigars, the property of Miles Halliwell, on the 6th inst. Prosecutor, a beerhouse-keeper of Shipley, missed the box of cigars from a cupboard in his house, and taxed prisoner with stealing it. Prisoner then admitted the offence, and showed prosecutor where he had put it.—There was a second charge against the prisoner of stealing three pieces of cloth from the mill of Sir Titus Salt, at Saltaire, which had been given him to clean the machinery. Prisoner said he picked it up in the yard.—The Bench, taking into consideration Ambler's good character, sentenced him to one month's hard labour.

11 Sep 1877⁵

**EXPERIMENTS WITH THE TELEPHONE
AT SALTAIRE.**

A series of highly interesting experiments with the telephone have just been made at Saltaire. Mr. Titus Salt, having telegraphic communication between the mills and his residence at Milner Field, invited Professor W. F. Barrett, who brought with him the instruments used by Mr. Freese at the recent meeting of the British Association at Plymouth; and, assisted by Mr. Gilpin, superintendent of telegraphs at Bradford, and Mr. Davis, electrician, connected this marvellous little instrument with a wire, which was extended through several rooms at the offices of the works, and the questions and replies put and answered were so distinctly heard as to prompt the party to further trials. Accordingly, Lord Houghton (who was also present), Professor Barrett, Mr. Salt, and Mr. Edward Crossley then adjourned to Milner Field, a mile and three-quarters distant, leaving Mr. Gilpin and others at the works, and the telephone was attached to Mr. Salt's private wire, both the ordinary telegraphing instruments being placed in circuit, so that the current of electricity had to pass through their coils, which offered a resistance equal to that of 45 miles of the ordinary wire. Lord Houghton, Professor Barrett, and others conversed with Mr. Gilpin with the greatest success. Asked to read something from a newspaper, Mr. Gilpin read several paragraphs, which were clearly heard by the receiver, who repeated the sentences to those present, and on being compared with another copy of the same journal from which they were taken, it was stated, on inquiry through the telephone, that every word had been heard quite well. Instrumental music was then tried. Master Harold Salt played the National Anthem on the violin, and every note was distinctly heard at the works. "The Last Rose of Summer" was then asked for, but instead of giving this the National Anthem was repeated, with a view of further testing the instrument, but this was at once discovered. "God save the Queen" was then sung by one of the company at the works, and when this was concluded, Lord Houghton was heard to say, "Hurrah! hurrah! let me have it again," and it was repeated with equally satisfactory results. After the party had dined, about nine o'clock, the instrument was again tested, and gave greater satisfaction than before. Mr. Davis took charge of the telephone at the works, and added another instrument with a resistance equivalent to twenty miles of ordinary wire, thus increasing the circuit to a distance of 66½ miles: and even now the messages could be distinctly heard. Other trials were made, and at about half-past ten the party retired, expressing the greatest pleasure at the success of the experiments.—On Saturday evening further trials took place, Mr. Titus Salt, Professor Barrett, and others being at Milner Field, and a number of gentlemen who had attended by invitation, being at the offices of the works at Saltaire. Conversation was carried on with

perfect success. Your correspondent took the instrument by request, and not only heard quite distinctly what was said at Milner Field, but could easily distinguish the voice of Mr. Titus Salt, who repeated the first and third lines of a well-known rhyme, the second and last lines being returned to him, and asked various questions, the answers to which were heard by him so well as to elicit the ejaculation, "Bravo! bravo!" Miss Hanson, a young lady present at the works, being asked to sing a song, gave a verse of "Kathleen Mavourneen," every word and note being heard quite distinctly at Milner Field; and when the character of the song is considered, this is truly amazing. The telephone, however, seems to be particularly partial to a lady's voice. "The Canadian Boat Song," sung by three voices at Mr. Salt's, was also heard with admirable advantage. Various other trials were made of the most convincing nature. The telephone used was one of Bell's instruments, is marvellously simple, and acts for transmitting as well as receiving—a decided advantage over the telegraph. It is about six inches long, is cased with mahogany, one end extending something like the outer end of an organ stop, but is 2½ inches in diameter, bevelled in towards the centre; and a small circle of the thin sheet of iron which is fitted into the end of the instrument, about the size of a sixpence, is exposed and acts similar to the tympanum of the ear. The top of the telephone is screwed on so as to allow room for vibration, and the action of the waves of sound striking this thin plate upon a magnet communicating with the wire, conveys to the receiver at the other end the impression so produced or taken. The result of the experiments on Saturday seemed to show that although it is necessary to speak very clearly and emphatically what is intended to be transmitted, it is preferable to hold the instrument a short distance from the mouth—say ten inches or a foot—rather than place it close to the lips. In the latter case the tendency seemed to be to render the spoken words thick, and consequently somewhat unintelligible to the receiver; while in the case of the song rendered by Miss Hanson, where the telephone was held a short distance from the singer, every word and note was heard, as Mr. Salt said, "quite distinctly." What still remains to be accomplished before this latest effort of scientific skill can be made of much service in the transmission of verbal messages is to magnify the sound so as to be heard by more persons than the one who may have charge of the instrument. At present this is not so, the least disturbance in the room where the message is received preventing its being intelligibly heard. But, under any circumstances, it appears very probable that the telephone is destined to become a highly useful agent in the communication of verbal messages to long distances.

4 June 1878⁵ –

Messrs. Titus Salt, Sons, and Co. have informed the operatives at Saltaire that, owing to the condition of trade, some deduction of wages will be made after the close of the present week. From what our correspondent can ascertain, he states that it seems highly probable that the workpeople will quietly accept the change.

6 February 1879⁵ –

The reduction in operatives' wages which has just taken place at Saltaire has varied in the different departments of the works; but upon the whole may be said to have amounted to about 8 per cent. The Messrs. Salt, however, have resolved to reduce the house rents in Saltaire 10 per cent., the reduction to take effect this week.

24 January 1890¹⁰ –

ADVANCE OF WAGES AT SALTAIRE.—In response to an application from the operatives in certain departments of employ at the Saltaire Mills an advance upon the wages previously paid has been given. Spinners are to receive an increase of 4d., and half-timers in the same department 2d.; twistera, 3d.; and drawers, 6d. The hands express themselves disappointed in the amount, having expected an increase more nearly approximating in inverse ratio to the reduction made twelve months ago. Another advance is likely to be demanded at no distant time.

18 May 1880⁵ – Serious Accident at Saltaire Mills

(See overleaf)

SERIOUS ACCIDENT AT SALTAIRE MILLS.—

Yesterday morning, about ten o'clock, an accident of a very serious nature, though happily unaccompanied with loss of life, occurred at the works of Messrs. Salt, at Saltaire. On Monday and yesterday it was intended to run the mills half-days, and accordingly the hands were at work, when, about the time named, a loud noise was heard in the vicinity of the engine which drives the whole of the east end of the mills and the machinery in the weaving-shed, and almost immediately two large pulleys, or drums, fixed on the shaft in direct communication with the spur fly-wheel—one 13ft. 2in. in diameter, 3ft. 2in. in width, and weighing 6 tons 8 cwt., and the other 3ft. wide, 11ft. 11in. in diameter, and weighing 5 tons 15 cwt.—were broken up and hurled about, breaking the wooden boarding fixed around them for safety, tearing up a portion of the floor in the twisting-room, and doing damage to several machines nearest to the partition. The greatest consternation seized the hands employed in the twisting-room, and many in the weaving-shed, hearing the loud report, ran to see what was the matter. Almost as soon as the splintered wood, &c., had fallen into the hole below, flames rose to a considerable height, and had not prompt measures been used the fire would have rapidly spread: but as it was, the flames were quickly subdued, and when the smoke cleared away it was found that the shaft upon which the pulleys or drums previously alluded to were fixed had broken in two in the bearing, the break extending more than half-way through the neck of the pedestal upon which the shaft, which was 14ft. long, and no less than 10in. in diameter at the place where it broke, revolved. The arms of the two drums, which weighed about 3 cwt. each, were all uniformly snapped off close to the nave of the wheel, and some of them were thrown a considerable distance. One of these pieces was flung with great violence against a door on the south side of the mill, and two boys, who were near a bobbin bin at the time, fortunately escaped unhurt, though their escape was certainly a marvel. Three men, who for some time had been engaged in oiling the shafting on account of its having heated, had also only just left the place when the accident occurred. Pieces of the surface of the drums, which were of cast-iron and 1½ inches thick, were thrown about in several directions, but fortunately did no more than tear up a portion of the flooring of the twisting-room and destroy the casing above mentioned. A large flag was pitched into the back of one of the twisting machines, which was in consequence broken in several places. The belting which conveyed the power from the pulleys now demolished to the several rooms in the east end of the mill, and one piece of which was 3 feet wide, 116 feet long, and weighed nearly half-a-ton, was torn and otherwise injured, so that it will probably be of no further use; and altogether the damage done to property cannot be under £1,000, to say nothing of the loss that will be caused by the delay that must necessarily ensue before the machinery can be repaired and again got into working order. Unfortunately, the spinning department of the works will be stopped, and other departments cannot long be kept going while this branch stands. It is, however, thought that by the use of two portable engines, of not less than 100-horse power each, which it is believed may be fixed on the outside of the mill and worked by belts through the windows, at least some part of the hands may be soon again got to work; but at present fully 600 operatives are, and probably for several days will be, perforce idlers. The cause of the accident is not accurately known. Some think that the breaking of the shafting would cause the drums, which at the time were passing through about 1,700 yards of space, or going at the rate of 121 revolutions per minute, to fall and hence to smash immediately; whilst others are of opinion that the breaking of the belting and the falling of it and the debris upon the pulleys would cause the pulleys to break. It seems likely, however, that the former hypothesis is correct, as it was noticed on Monday, and again yesterday morning before the accident happened, that the shafting caused the pedestal to shake, and this seems to indicate that something was moving out of its place, though it was thought it might be run with safety until the mill stopped at half-past eleven. That the danger was greater than was anticipated is now, unhappily, too palpable. Only a week or two ago it was discovered that the shaft of the other principal engine was dangerously cracked, and steps were at once taken to replace it with a new one. This has been going on since, and only at the time of the second accident yesterday was so far brought towards completion that it was expected to be started this (Wednesday) morning.