

WHEATLEY

Between 0.42 and 1.40 p.m. 4.33" of rain fell, and the total fall for the 24 hours amounted to 5.47". Extraordinary hailstorm, the stones being as large as walnuts. The fall lasted an hour and did great damage. The total rainfall was 3.95".

"At one time there were nearly 4 in. of hail on the open ground, while against walls in places there were broad mounds 4 feet deep, the hail stones were of great size. All the large stones were composed of dense clear ice wrapped round a dull centre, and were exceedingly hard. The extent of the damage can be realized by the havoc done in the rectory garden. The correspondent writes:- 'There is a beautiful rectory garden at Waterstock which in the morning was in the perfection of its summer beauty. Lawn beds bordered by a mass of violas, surrounding spaces just bedded out with young plants so far carefully cherished. The herbaceous borders gorgeous with full-blown peonies, immense poppies and bushes of lupins, with their ordinary companions, while white cushions of nemophila crept towards the lawn. Great bushes of yellow Scotch roses, bushes of white 'broom,' pergolas covered with pillar and climbing roses, all just coming into flower. Now not a solitary vestige of a flower, and hardly a leaf remains. The lupins are only bare sticks and the roses are little more. The ground is strewn with roses, buds and leaves. Chrysanthemums in their outdoor pots are simply sticks. The violas and their companions have vanished, leaves and all. In fact, the whole year's gardenwork is absolutely destroyed; the beds are bare or simply full of green sticks. It is complete and incredible desolation. The kitchen gardens and the field crops also suffered severely. Every conservatory roof was smashed as well as every melon and cucumber frame. The storm was very local. The clouds seem to hang over one small area, scarcely a mile across, and neighbouring parishes entirely escaped.'" – *The Times*

The great focus of destruction seems to have been between Wheatley and Waterstock, about six miles east of Oxford. The destruction which befell the Vicarage garden at Waterstock is graphically described [elsewhere]. The careful measurements of Mr. Leyshon at Wheatley School, though made with a gauge of faulty construction, and therefore, through no fault of his, inaccurate, give a clear account of the progress of the storm. The rain gauge consisted of a glass funnel placed in the neck of a bottle, and, apart from the extreme difficulty of measuring the mean diameter of such a funnel, the absence of any collar to protect the neck of the bottle from water pouring down the outside of the funnel, made it practically certain that too much rain would be recorded in any storm. The fact that the readings of the gauge are given to three places of decimals of course merely shows that the calculation was carried to that extent, but is no guarantee of the degree of accuracy possible in the instrument itself. We quote from a newspaper report:-

"The gauge was emptied, as is the custom, at 9 a.m. on Thursday, and the reading entered in a book kept for the purpose. At 12.42 the storm broke, and at 1.20 Mr. Leyshon emptied the gauge on account of its limited capacity. It then recorded 2.675 inches. Twenty minutes later a further 1.665 inches was on record, while at 6 p.m. 0.857 inch had to be added to the record from 9 a.m. onwards. At 9 a.m. next morning there was a further 0.292 inch, bringing the total for the 24 hours up to 5.491 inches. Between 12.42 and 1.40, roughly an hour, over 4½ inches of rain fell in the village."

A rainfall record at Holton Cottage, Wheatley, about a mile from the School-house, gave 4.98 in., and this figure also we regret that we cannot place in the list, because the rain gauge proved on inspection to be exposed in such a way as to make it certain that more than the true rainfall would enter during heavy precipitation.

The amount recorded at both the School-house and Holton Cottage is probably not- very greatly in excess of the truth ; it is not impossible that compensating errors may make it very near the truth ; for we know that the record of 3.93 in. at Waterstock was deficient. This is the figure given by Mr. Ashhurst's rain gauge, which, like all the others, was specially visited and inspected by Mr. Salter when the storm was being studied for the purpose of this article. The gauge is of the Glaisher pattern, in perfect condition, and would have given an accurate record, had it not been choked by hail, causing a certain quantity of rain to overflow. Thus it is quite

certain that in this storm more than 4 inches of rain fell, much of it in the form of very large hailstones. In a letter, Mr. Ashhurst says, " The storm began about 1 p.m. with a hurricane for about 10 minutes, then, about 1.15, down came the hail, or rather large lumps of dense clear ice, wrapped round a dull centre. The precipitation lasted until about 3.30 p.m., but the worst was over by 3 o'clock. The rainfall from 1.15 to 3.30 p.m. was 3.20 in., and to 9 a.m. next day an additional amount of 0.73 in. was recorded. The hail lay to a depth of about 3 inches on level ground, and in places it was piled up into heaps 2 feet to 3 feet high. The storm area was about a mile long and half a mile wide."

Mr. Ashhurst has most kindly supplied a series of photographs, which are reproduced on the accompanying plates, in illustration of the damage done.

It will be noticed that Fig. 3 shows a mass of hailstones congealed together in a ditch, and Fig. 4 the same mass lifted out of the ditch and set upright on a little footbridge which crosses the ditch.

Figure 3

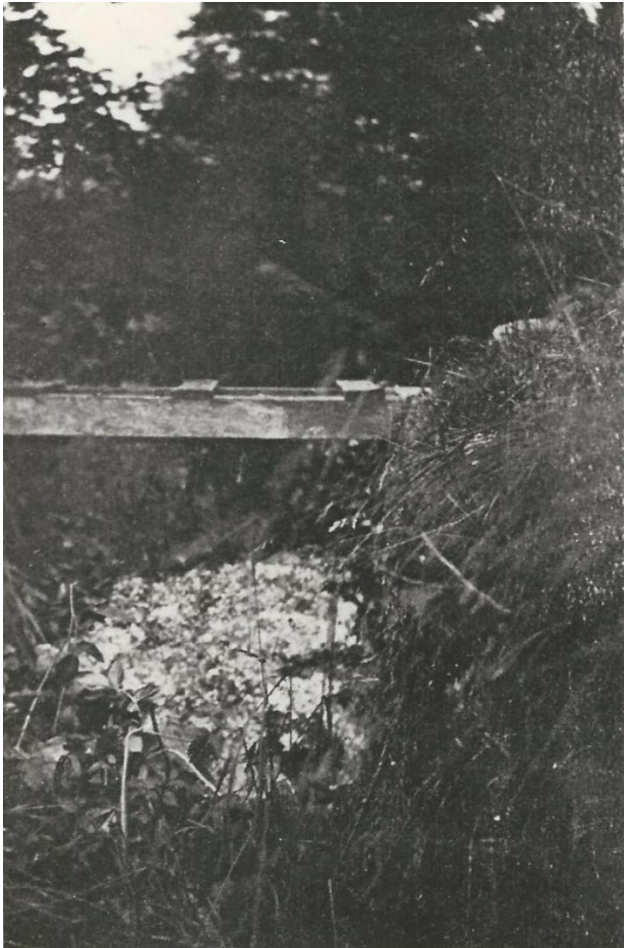
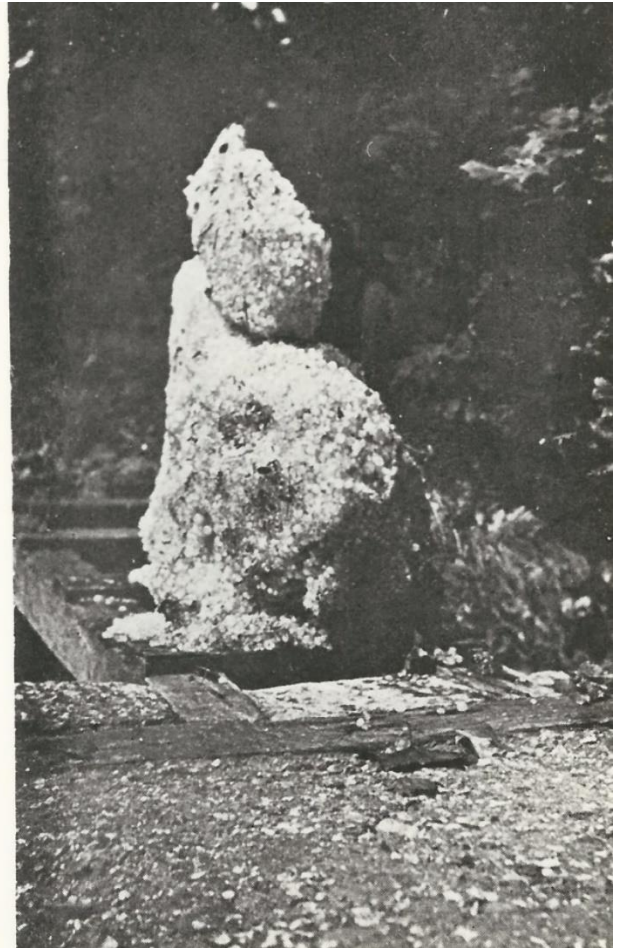


Figure 4



This bridge is 7 ft. 11 in. long and 1 ft. 7 in. wide, the steps being 3| in. wide and 1 ft. 1 in. apart. These dimensions serve as a scale for judging of the size of the mass remaining unmelted for several days after it fell; the outlines of the individual hailstones can be easily seen above.

