



F.R. Note No. 113

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REPORT ON A VISIT TO A FIRE

at

FOUNTAINS MILL, HIGH STREET, UXBRIDGE.

by

D. Hird

June, 1954.

Fire Research Station,
Station Road,
Boreham Wood, Herts.

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Introduction

At the invitation of D. O. Moss, Fire Prevention Officer of Middlesex Fire Brigade, a visit was paid to the scene of the fire on Thursday, May 13th, 1954.

Description of occurrence

The building was about 200 years old and until about two months before the fire, had been used as a grain mill. A change in ownership had then taken place, and at the time of the fire two contracting firms were working on the mill, one removing part of the plant and the other doing building maintenance. The building was three stories at the rear with a small tank room in the valley between the two spans of the tiled roof. There were four floors at the front of the building.

Description of damage

The top two floors at the front of the building were almost completely destroyed, and the plant was heavily damaged. Large timber beams (12 in. x 12 in.) were charred to a depth of just over one inch and were still supporting some of the damaged plant. The tank room at the rear of the building was completely destroyed but the heavy damage on the top floor at the rear was confined to the region around the tank room and between the two spans. This was probably due to the venting of the fire by the shattering of the asbestos cement roof of the tank room which limited the lateral spread.

Cause of fire

At the time of the visit there were still large deposits of grain dust in various parts of the building, and the workmen said that there had been similar deposits on the slatted floor of the tank room. Several men had been working in this room on the afternoon before the fire using oxyacetylene cutting tools to dismantle one of the tanks. The ground floor of the building was opened up at about 8 a.m. on the day of the fire, and fire was seen coming through the roof at about 8.30 a.m. Samples of two types of dust were collected, and it was found that both samples would smoulder in still air when dry and could be ignited by a small source.

All the evidence, particularly the long time between the last person being near the tank room and the outbreak, points to the fire being caused by the smouldering of the grain dust, and this might have been initiated by either sparks from oxyacetylene equipment or by a cigarette end. When the ground floor was opened on the morning of the fire, there was probably sufficient increase in draught (there was an open shaft running up the building) to start flaming.

Conclusions

The damage to the rear part of the building was limited because the fire was vented by the shattering of the asbestos cement roof of the tank room. The lateral spread of fire in buildings with large floor areas might well be reduced by the inclusion of some material in the roof which would allow this venting.

This was one of the many fires which occur when alterations are being carried out in buildings. This is a similar problem to that occurring with the refitting of ships, and similar fire precautions ought to be taken.