

**18 MAY 1876**

**THE EXPLOSION AT THE POWDER MILLS NEAR  
LISKEARD**

**Three Men Died**

**THE INQUEST AND THE VERDICT.**

as reported in

Royal Cornwall Gazette 27 May 1876

The coroner's inquest as to the cause of the deaths of Joseph Jeffery, William Leeman, and Anthony Hocking. The three men killed by the late explosion at the East Cornwall Powder Mills, Herodsfoot, was resumed on Thursday, the 18<sup>th</sup> inst. at the works, by Mr A.C.L. Glubb, county coroner. Major Majendie, R.A., her Majesty's Inspector of Explosives, attended.

Edgar Lobb, a workman in the employ of the company, stated that about eleven a.m. on the 12<sup>th</sup> inst. he was in the "cake" – house when he heard a report. He went to the door, and, seeing smoke and fire coming from the "breaking" house he ran away, shouting to John Verran, who had been working with him, "Look sharp, Johnny." Both ran away past the "press" house and across the river, when they were knocked down by the second explosion. Heard no other explosion after the second. Witness saw deceased Jeffrey in the doorway of the press house, and said "Look sharp, Joey." Heard no reply, and did not know what deceased did. The Press-house was blown up, and the body of the deceased was found in it. The north wall had been blown down, and his body was outside it. The body of Anthony Hocking was found in side where the walls of the cake-house had stood, and that of Wm. Leeman outside the walls. Both Leeman and Hocking were sensible when found, but Jeffrey was not.

- By Major Majendie:

Witness was bring the cakes from the press-house to the cake-house, and had nothing to do with the breaking-house. Could not say how much powder there was in the cake-house. There was an order against workmen having pockets in their clothes, and this was attended to; there was also an order against smoking, and this was strictly carried out.

John Verran another workman deposed on the 12th inst. he was engaged in taking powder from the cake-house to the breaking-house. Heard the explosion and ran off with Edgar Lobb. Saw Jeffrey, but did not speak to him. The powder was taken to the breaking-house in barrels, conveyed on a wheelbarrow, and then tipped on the "clean" platform, whence the breakers took it in. None of the grit of the wheelbarrow got on the platform. The barrels may hold 100lbs each.

- By Major Majendie: *(missing words in report)*

Was engaged in the breaking house half an hour before the explosion and Hocking and Leeman were there working as usual. Neither was smoking, nor drinking, nor did he believe that anyone disobeyed the order not to do so. Witness wore slippers in the house, and every time he went out he put on his boots, but never went in with them on. The mallets used for breaking were not kept in a place where grit could get on them. He watered the clean platform at the breaking house just before the explosion, but had not watered the entrance to the cake-house. The barrels in which the powder was conveyed to the breaking-house were not covered, except in wet weather. The breaking house was lined in the usual way with wood. When driving the barrow to the breaking-house he never let the powder knock against the wall, nor did he see any grit fall into the barrels. Never saw any grit in the powder, and never heard that any had ever been found there. There was no accumulation of broken powder in the breaking-house at the time of the explosion.

James Stephens, workman said that just before the explosion, he took powder from the breaking house, and having deposited it in the breaking-house he took more to the sifting house and then went into the "sizing" house, when the explosion occurred.

- By Major Majendie: *(missing words in report)*

When he left the breaking-house there was very little powder remaining. Everything was going on in the usual way. The men were dressed properly, and he saw nothing to account for the explosion. When at the cake-house at 7.30 in the morning of the explosion he thought there were over two tons of powder in it, but the house was not half full. The walls of the breaking house were lined but the roof was not, there being a slate roof; the roof of the cake-house was sealed with wood, as well as the walls being lined.

– The Coroner:

Did Leeman give you any account of how the explosion occurred?

Witness; Yes. When we were carrying him up I asked if he could any reason why the explosion occurred, and Leeman replied, "As soon as I struck the mallet I saw the fire." He did not say where he struck the mallet.

John Clarke Isaacs – re-called, said Mr Andrew Hingston, engineer, Liskeard, asked Leeman in his presence, "Did you see the fire when you were breaking?" Leeman said "Yes" Dr. Hingston then said "What, on the table?" and deceased replied "Yes". Deceased was quite conscious.

Henry Lobb, foreman at the works, who has been employed by the company thirty years, said he was in his garden in sight of the breaking and cake house when the first explosion in the breaking-house occurred. This was followed by the cake-house going, the press house being blown up at the same time. Witness then ran about twenty yards and got under a shrub, and then the mill was blown up.

- By Major Majendie:

The special rules under the old Gunpowder Act were still in force at the works, new ones not having been made yet. The rule as to the clothing to be worn was strictly enforced, the company supplying the outside frock to the men. Had satisfied himself

that the men had not got pockets. When they had he cut them out. He had never had to reprimand Leeman, Hocking nor Jeffrey for the clothes they wore. Never had to caution any man for breach of the rule.

The Coroner:

You say you have cut pockets out of the trousers?

Witness:

That was when new garments were worn. I never had to cut out pockets from clothes in the breaking or any other house. I did it in the changing-house. The rule as to the shoes and slippers was strictly observed. Never saw man come out of danger-house in his slippers, nor go in with his gritty boots on. One might have put a foot inside to look in, but he never went inside.

Major Majendie: Do you think that right?

Witness: No, it is breaking the rules a little, I never saw any of the deceased men do this, and the only house where it was ever done was in the lobby of the drying house.

Major Majendie: Did you ever dismiss a man for this breach of rules or make him forfeit his wages, or inflict any other penalties as provided by the rules?

Witness: No one has ever been dismissed, but reprimanded and a caution given.

Major Majendie: How long ago have you had any case of this sort to complain of?

Witness: It may be three or four years ago. Nothing of the kind has occurred since the present rules, made in 1874, came into force. Never saw a man smoking on the premises; Jeffrey, he believed smoked a pipe at home. The breaking-house was a building lined with wood but the roof – a slate one- was not sealed. The cake-house was a similar one, but besides being lined the ceiling was sealed with four inch American plank, bedded in with a foot of clay, to prevent anything penetrating. The press-house was lined, but the roof was of slate and not sealed. At eleven o'clock on the 11th there were four or five tons of powder in the cake-house, and as the work was going on regularly, it might be inferred that when the explosion occurred there were four or five tons of powder in the cake-house. The mixing-house was lined and sealed, and here the ingredients were mixed with a copper shovel, and, after being mixed, placed into a sieve, with a mesh between three quarters of an inch and an inch in diameter.

Major Majendie: Is that sieve fine enough to keep out grit ?

A That depends on the size of the grit.

– Q. Would it be possible for a piece of grit of a size which would be objectionable in powder to get through that sieve?

A. I should say so.

– Q. In fact you think the sieve would keep out some grit, but would not ensure a total absence of it?

A. We don't expect to find a lot of grit.

– Q. Then what is the object of sifting?

A. To mix the ingredients.

– Q Is it?

A. Partly.

– Q Are you aware that rule 13, of the general rules, posted all over the premises states:- "In a factory all ingredients to be made or mixed, be carefully sifted for the purpose of removing, so far as practicable, all dangerous foreign matter?" Have you any second sifting to satisfy this rule, or do you depend on the sifting described by you as being satisfactory?

A. We do not use a second sieve. I did not understand the rule as meaning the sifting should be to exclude dangerous foreign matter. I knew the ingredients must pass through a sieve, but the size of the mesh was not mentioned. The ingredients for the powder were examined by those through whose hands they passed. The charcoal was hand-picked before being ground. The saltpetre was beaten to pieces with a shovel and examined, and in times past they had found a nail among it which had come from the barrel. It was the duty of the men to report this to him, but he did not know if they had done so. There was no sifting of sulphur. Treated the clean floor of the saltpetre store in the same way as he would the floor of a danger building. The sulphur-house was also clean. A rule of the company limiting the quantity of powder to be in the breaking-house at a time to 1,000 pounds was stuck up at the door. No regard had been paid as to the quantity to be kept in the cake-house, and he thought there was no obligation to do so under the Act. Could not say that the terms of the certificate under which they worked required this. The cake-house was certainly not forty yards off from the breaking house, but it was looked upon as a relief to the press-house, from which it was forty yards distant. All the deceased were steady men; Jeffrey had worked for twenty years for the company, Leeman four years, and Hocking two years.

Major Majendie stated that he had received instructions from the Home Secretary to hold an enquiry into the explosion under the Explosives Act, which enquiry he had held and completed. The broad result of his enquiry had been to shew that the circumstance was one of those accidental ones which he was afraid must always more or less be expected in gunpowder factories. The general arrangements of the factory for the elimination of the better known risks appeared to be good. There were certain points which required alteration, for example the absence of wood lining to some portions of some of the houses; and the use at a part of the works of an uncovered barrel for conveying the powder. The sieve requirement was quite new until the Act was passed, but in his judgement the one used at Herodsfoot was not sufficient for sifting, or to come under the requirements of the Act. But then he must remind the jury that the Act was a very recent one, and a little license must be allowed seeing how lately it had come into operation. The quantity of powder in the cake house was also an evident non-compliance with the Act. This was not his first acquaintance with the factory. When he first visited it in 1871 he thought it was his duty to take steps to put them right, and each succeeding inspection had shown a very marked improvement. There had been a great readiness on the part of the company to adopt the various suggestions made (for there was no statutory obligation at that time to compel them), and they had done all they could for the benefit and safety of the work-people. It was only fair that he should say this

because he knew that explosions of that sort had an effect upon the minds of some to establish in their view a prima face case of carelessness. He thought that the statement of Leeman was worthy of credit, and that would be the effect of his report to the Home Secretary. He believed the spark was caused by the mallet, owing to the presence of some unexplained cause or particle of grit which had got in the powder, although it was not necessary to have grit to produce an explosion.

Mr. J. C. Isaac, as secretary of the company, thanked Major Majendie for his statement, and mentioned that the company had always desired to act in accordance with the views of inspectors. In 1874, out of twenty four powder factories in England, Scotland and Ireland, twenty three were reported as not having fulfilled the recommendation given by the inspectors and East Cornwall Powder Company was the only one that had done so. The cake-house was built for the purpose of protecting the lives of the men, the company desiring to fulfil, not only the letter, but also the spirit of the law. He believed that improvements would be made in the mixing-house, and that the buildings would not be so near again when rebuilt; in fact, they would adopt any course suggested by her Majesty's Inspector for the safe working of the works and the protection of the men.

The Coroner summed up, and the jury found that all the deceased met their deaths through an explosion of gunpowder accidentally caused.