

Number.	Accident.	Killed.	Injured.
	<i>Brought forward</i>	12	59
(18.) No. 114 1895.	Explosion of socket signal at Kirkoswald, Ayr ... (See Annual Report, 1895, pages 42 and 146.)	—	6
(19.) No. 96 1897.	Explosion of socket distress signal at Poole ... (See current Report.)	—	1
(20.) No. 129 1897.	Explosion of socket distress signal at Liverpool ... (See current Report.)	1	7
	Totals	13	73

To repeat, what we said in 1893, this list justifies our anxiety with regard to socket signals: "They are, doubtless, valuable signals when they act correctly; but when a failure occurs from one of the various causes which may become operative, or when they fall into ignorant or careless hands, the result is liable to be disastrous. They then become shells or infernal machines of no little power."

1897

GOVERNMENT ACCIDENTS.

H.M.S. "Gibraltar," Zanzibar. On the 9th February, at Zanzibar, while the quarterly examination and testing of the dry primers for Whitehead torpedoes were being carried out, an explosion occurred by which four men were killed and another one injured.

Royal Laboratory, Woolwich. On the 5th May, during the operation of mixing cap composition for .303 ammunition in the apparatus at No. 8 Mixing Building, Royal Laboratory, Woolwich, an explosion occurred destroying the cylinder, bag, &c., and breaking 5 panes of glass in the windows of the building, one in the gas lamp outside the building, and also cracking two panes of glass in the windows of the building. No injury was sustained by either of the two persons employed in the Mixing Building.

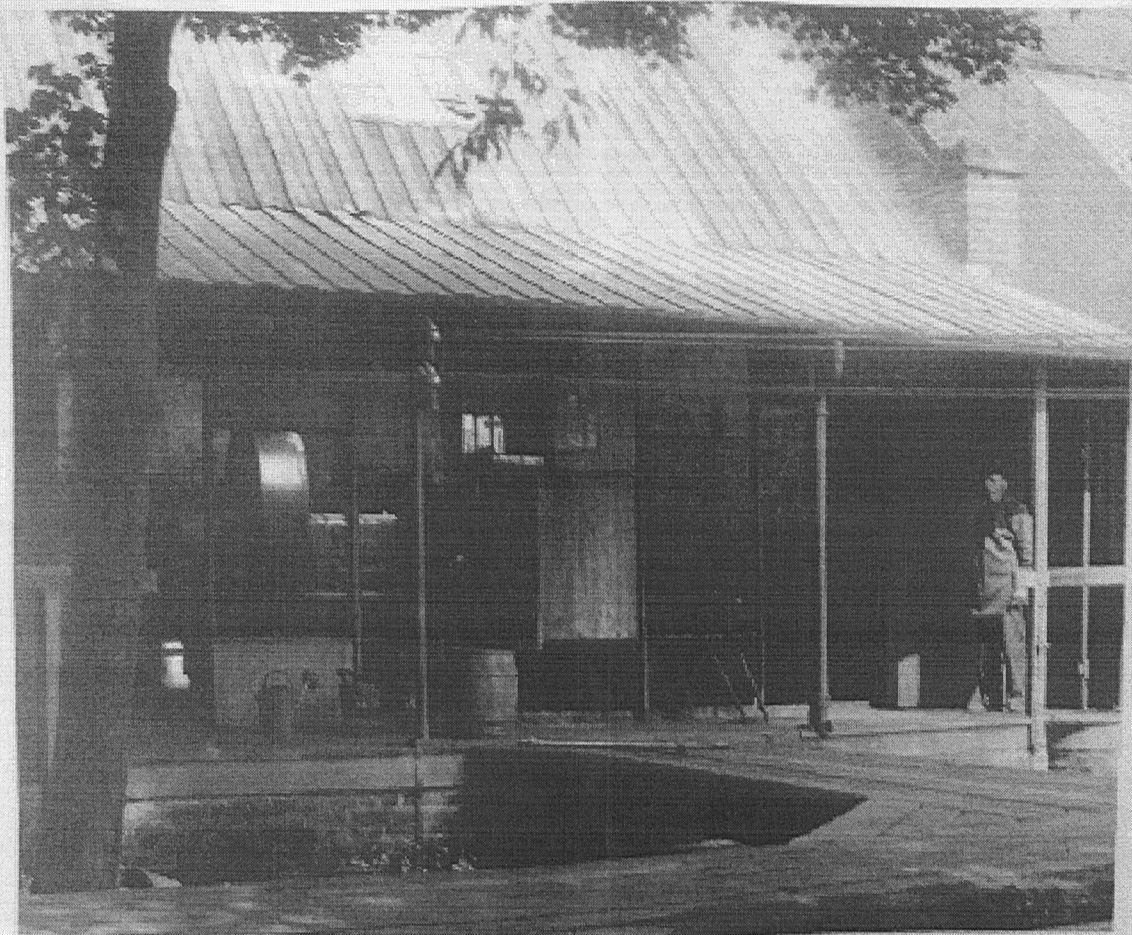
H.M.S. "Champion," off the coast of Iceland. About the beginning of August an accident occurred on board H.M.S. "Champion" by the bursting of a 5-inch gun during target practice off the coast of Iceland. One officer and 7 men were more or less seriously injured.

H.M.S. "Galatea," off the Humber. On the 22nd September, while target practice was being carried out on board H.M.S. "Galatea," in the North Sea off the Humber, a 22-ton breech-loading gun burst, and a seaman who was standing some little distance away was struck by a splinter of the gun and died from the injuries he received.

Royal Gunpowder Factory, Waltham Abbey. An explosion of a somewhat violent character occurred at the Royal Gunpowder Factory, Waltham Abbey, on the 2nd October, in a mill in which a charge of 60 lbs. of picric powder was being incorporated, and which had been running 40 minutes. The explosion was sufficiently violent to damage the machinery, both the runners were broken in half, the bed was badly cracked, and damage was done to the masonry containing the gearing. The masonry walls of the mill were uninjured, but the light wooden framing which formed the front, north side and roof was blown away, as also was the verandah in front of the mill. Practically all injury of any consequence was confined to the mill itself, and no personal injury was sustained. It is thought probable that the explosion was due to the laying bare of a portion of the bed, due to the powder adhering to the runners and thus giving rise to friction. The most satisfactory remedy for this risk would be the adoption of suspended runners.

Naval Ordnance Depot, Bull Point, near Devonport. An accident of a somewhat remarkable character occurred in the Naval Ordnance Depot, Bull Point, near Devonport, in December. It appears that a 4-inch armour-piercing steel shell which was in a box with two others, all of them filled and fuze, broke up spontaneously, owing, in the judgment of the Committee who investigated the matter, to some internal stresses in the steel, and in so doing ignited the bursting charge and burnt out the fuze. The explosion is stated not to have been violent, being practically restricted to the box in which the shell was packed, a large number of shell

128/117



N^o 107 Explosion of N^o 11th Mill Group B with green charge July 16 1897 N^o 456

16.7.1897

128/117

128/113

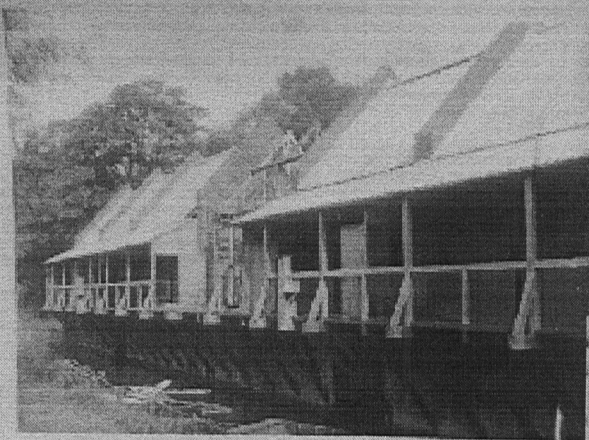


X 108 Explosion of No. 11th Mill Group B with green charge July 16 1897 - Neg. A57

16-7-1897

128/113

128/121



W. 1575

May 1897

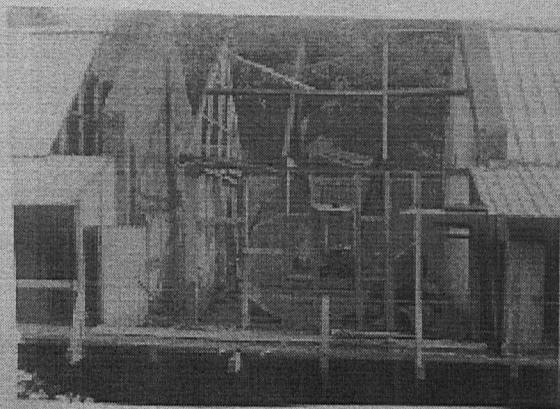


W. 1576

May 1897

WASC
1576

No. 5 Mill. Exploded October 2nd 1897 with barrels of Gun Powder



W. 1577

May 1897

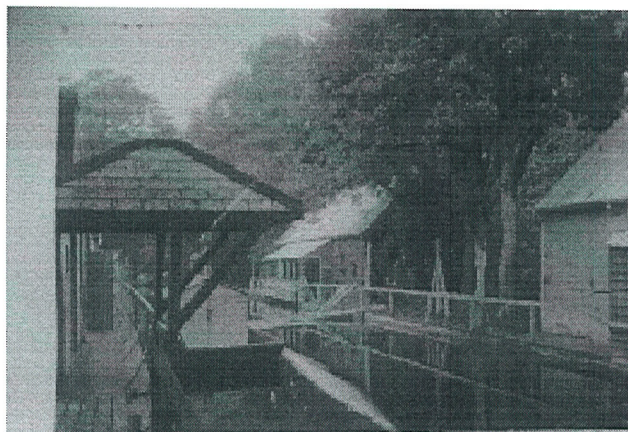


W. 1578

May 1897

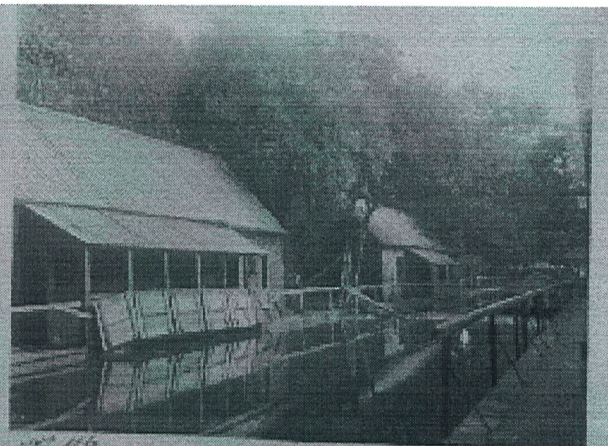
128/121
2. 10. 1897

128/122



Nº 112

May C.S.



Nº 116

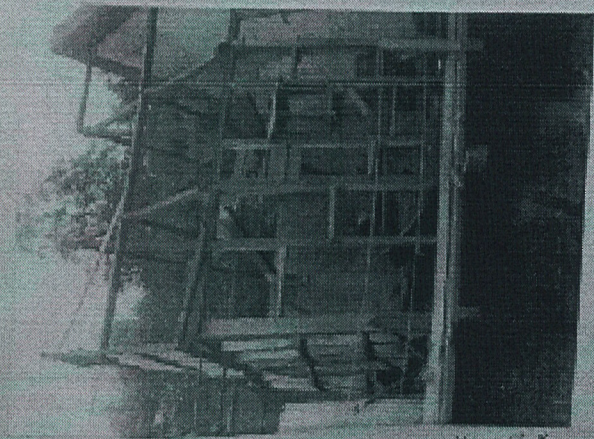
May C.S.

Nº 5 Mill. Exploded October 2nd 1897 with 60 lbs. Dynamite



Nº 117

May C.S.



Nº 118

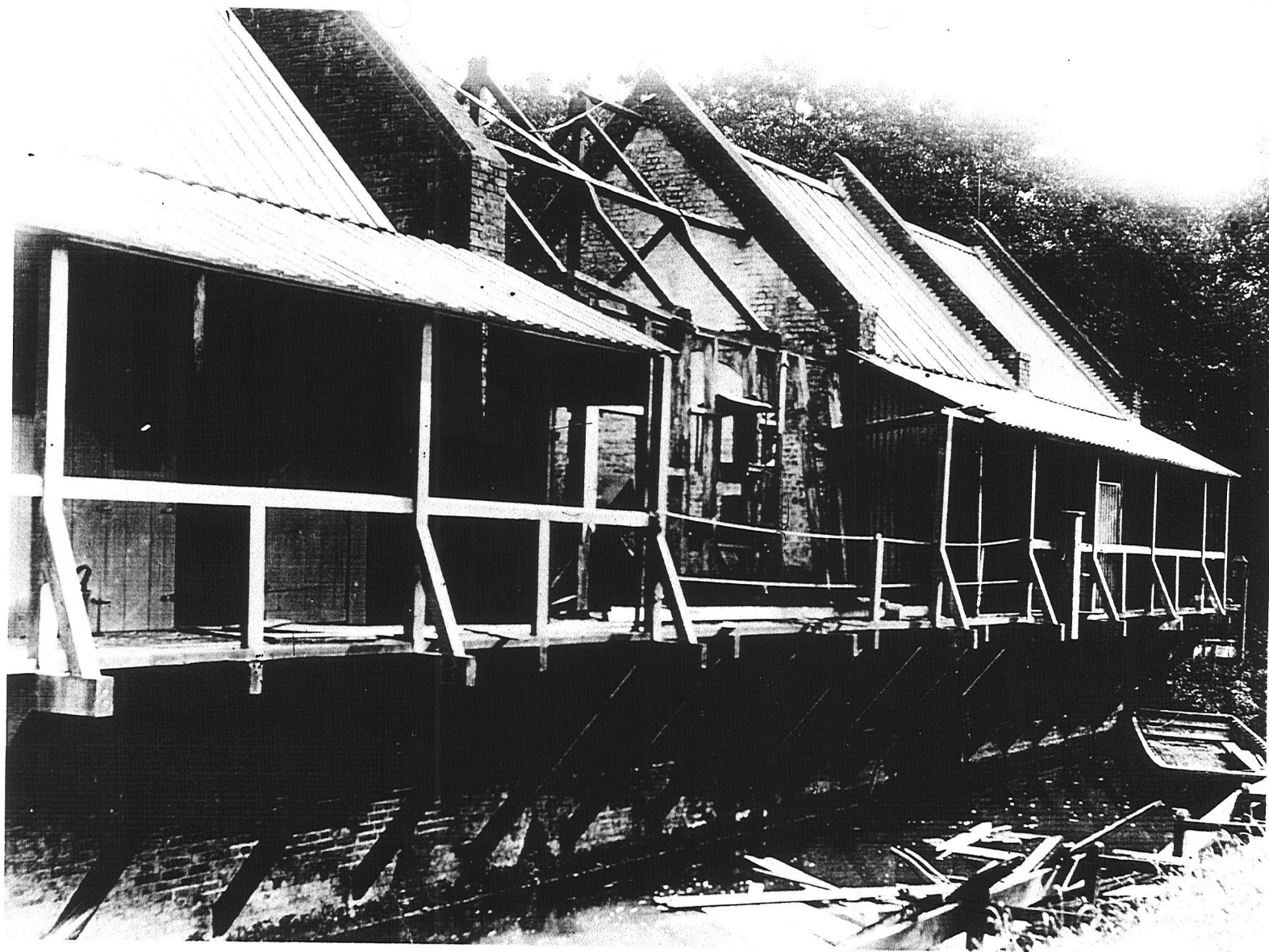
May C.S.

2.10.1897

128/122

No 5 Mill

2. 10. 1897



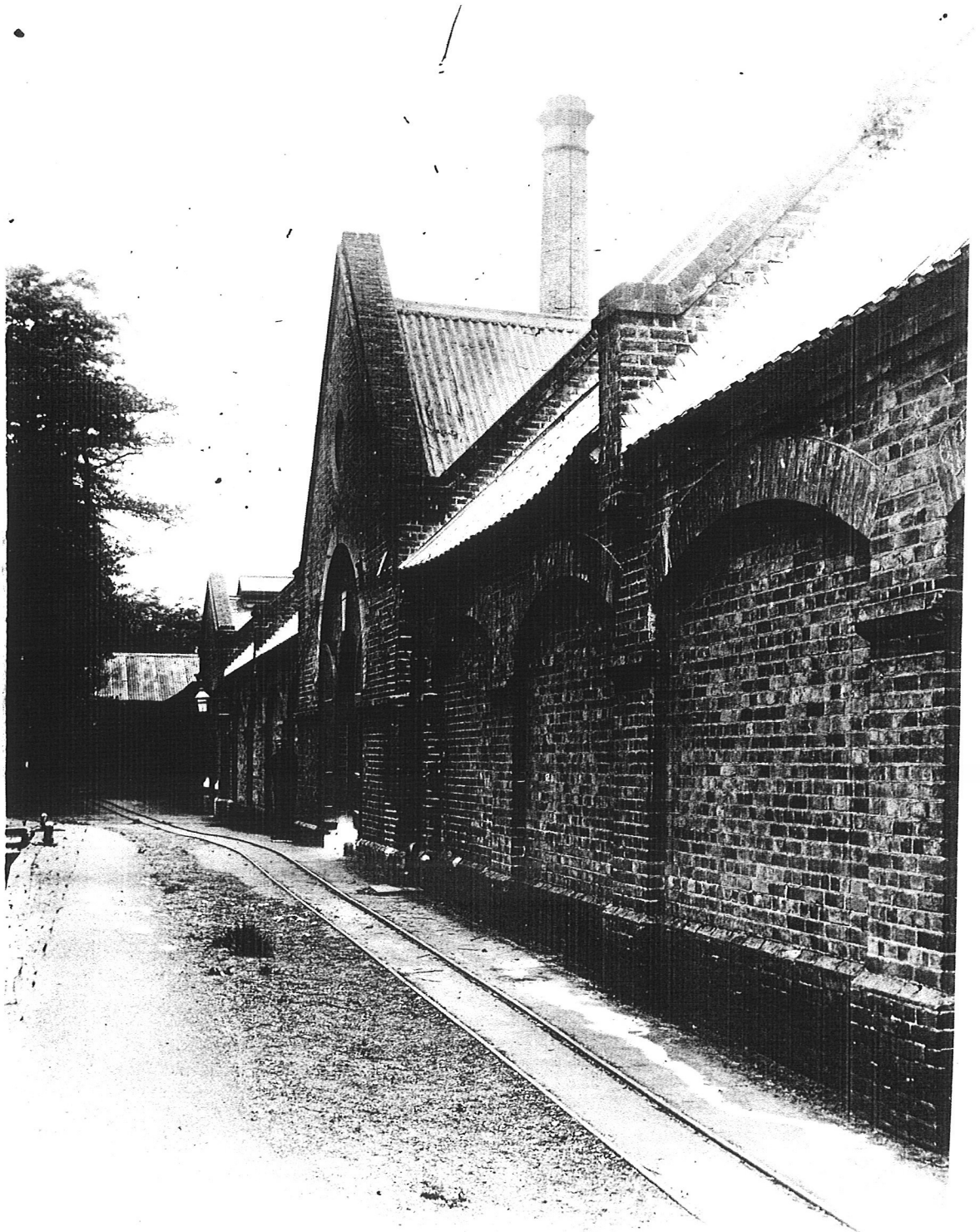
No 5 Mill 2.10.1897

1576

16.6.1898

11 & 11/11

1574



128/123

WASC
1575



No 120 Explosion of No 11B Mill on 16.6.98 at
12.50 AM Green Charge R.F.C. (at the)

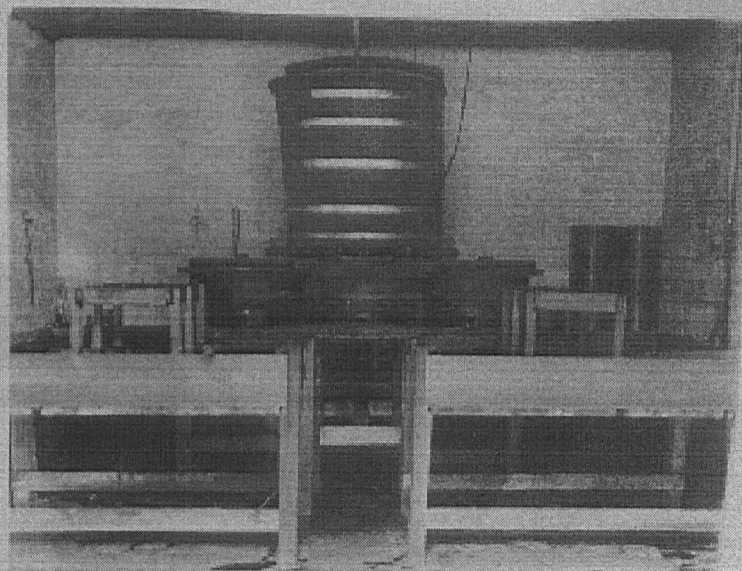


WASC
1574

No 121

No 120

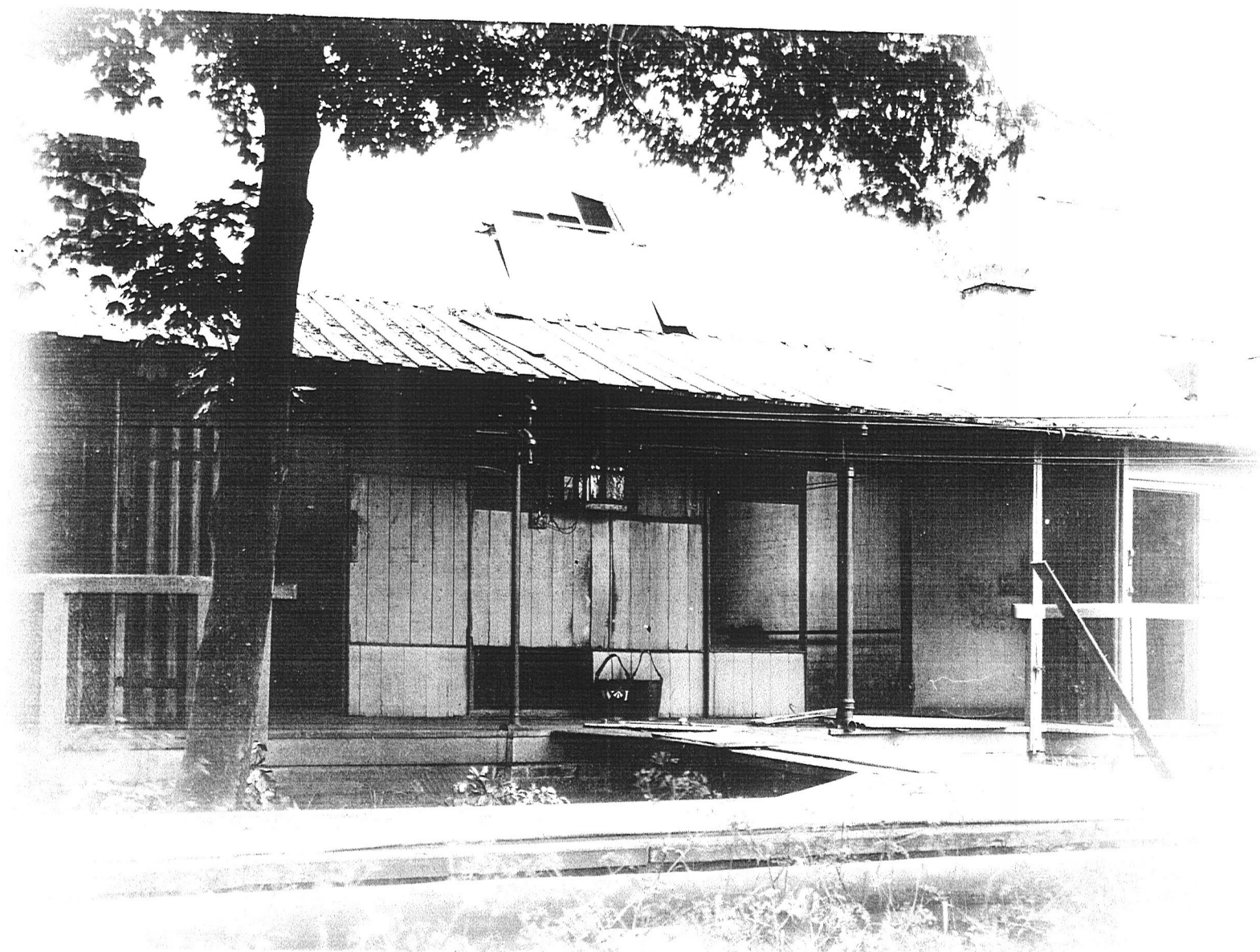
Explosion of No 11B Mill. on 16.6.98



No 121 Flange of Ammonia Head May 1912

16.6.1898

128/123



16.6.1898

11 2 17:11

1575

Only two accidents (115, 130) during firework displays proper, came under our notice, one person being injured in each case. The first was due to sparks from a small cannon falling into some fireworks close by, setting them on fire. The second was brought about by the bursting of a firework mortar.

rocket dis- The three other accidents (41, 74, 112) ranked under the head of fireworks, occurred
als. with socket distress signals, and add to the already formidable list of accidents with these dangerous articles. We have, in previous reports, repeatedly called attention to the dangerous nature of these signals, and we are firmly convinced that there can be no insuperable difficulty in designing a modification of the present form which would be equally efficient as a sound signal, and would at the same time not contain the main element of danger, viz., the detonator.

This view has been more than once urged on the firms manufacturing these signals, and during the year one firm has undertaken to carry out experiments with a view to producing a safer design. In order to further this very desirable object, we requested permission from the War Office for the firm to be allowed to obtain a supply of picric powder from Waltham Abbey; and in consequence of this request, the War Office granted a free issue of the explosive.

1898

GOVERNMENT ACCIDENTS.

M.S. A serious accident occurred on the 26th January on board the gunboat "Bouncer,"
bouncer," while carrying out gun practice near the Nore. Seven or eight rounds had been fired
or the with the 6-inch quick-firing gun, and on the gun being loaded again, the cartridge
re. prematurely exploded in the breech, blowing out the breech-block, which had not been locked. Two men were killed and six injured.

bara, In March, a report was received of an accident to a soldier at Atbara, in the Soudan.
udan. It appeared that on stooping to light his pipe at a fire, a packet of Lee-Metford cartridges fell out of his pouch on to the hot embers. He picked up the package and commenced to extinguish the smouldering paper, when an explosion occurred, blowing the unfortunate man's hands off.

Sheffield On the 3rd June, during the annual camp of the 1st Sussex Engineer Volunteers at
rk. Sheffield Park, an accident occurred, causing the death of a member of the corps. A detachment of the corps was engaged in the demolition of trees by means of guncotton. Holes were bored in the tree and charged with explosive, and fired by means of a detonator and safety fuze, the men retiring to a safe distance as soon as the safety fuze was lit. The deceased, who was not one of the party, was standing about 60 yards away, and was struck on the head by a splinter of the tree. He succumbed to his injuries.

Drill Hall, On the 4th July, while some small-arm cartridges were being broken up in a compart-
ambar- ment in the rear of the Volunteer Drill Hall, Dumbarton, an explosion occurred, and
three boys, the children of the drill instructor, were severely burned. The drill hall was much damaged by the explosion, the back of the hall being demolished.

Hartlepool An alarming explosion occurred on the 19th July at the Hartlepool Barracks, part of
racks. which is occupied by Naval Reserve men. A rocket exploded while the men were at drill, and four of them were more or less injured.

Waltham In November, a slight accident occurred at the Royal Gunpowder Factory at Waltham
bey. Abbey, causing very little damage. Grison suspended runners have lately been taken into use at the factory for grinding picric powder, and during this operation a slight explosion took place, due, it is thought, to the bearing of the brass scrapers too hard on the bed of the mill; very little damage was done beyond the breaking of glass. Only a portion of the charge exploded, and the force was not enough to start the drowing tanks.

A similar accident occurred at the same factory on the 7th December, causing considerable damage to the mill, but no loss of life or injury to persons.

FOREIGN EXPLOSIONS.

Foreign Following the practice of former years, we proceed to give a brief account of the more
Explosions. interesting Foreign explosions which have come under our notice. As we have remarked

Royal Laboratory,
Woolwich
Arsenal.

An accident occurred on the 21st March at the Royal Laboratory, Royal Arsenal, Woolwich, by which one of the employes received severe wounds on the hands and face. The man was employed in filling percussion caps for small arm ammunition. At the time of the explosion he had filled the charge plate and had just replaced the papier maché tray containing the superfluous composition from the plate in the cupboard provided. It is supposed that the act of closing the cupboard door caused a disturbance of the tray sufficient to result in an explosion.

Another accident occurred in the Royal Laboratory on the 6th June whilst a man was engaged in soldering a tin containing 25 No. 15 detonators. The man received serious injuries necessitating the amputation of his left hand, and three other men sustained slight injuries. It is thought that the man slipped in some way and jammed the cylinder against a wall and thus brought about the explosion of the detonators.

A third accident occurred at the same place on the 14th June, by which two men were severely burnt. They were engaged in driving wet guncotton into a torpedo head with a wooden mallet and setter, when the guncotton caught fire and flared up, injuring the men. It is supposed that the guncotton had not been sufficiently wetted, and the weather being very hot at the time the explosive was in a very sensitive condition.

A further accident occurred in the Royal Laboratory on the 14th September, due to the explosion of a 6 pr. Nordenfelt cartridge, by which one man lost his life. He was placing the cartridge in the machine in which the shell is extracted, when it exploded. The accident was attributed to a defective fuze.

Waltham
Abbey.

On the 21st April one of the incorporating mills of the Royal Gunpowder Factory, Waltham Abbey, blew up, doing considerable damage to the block of buildings of which it formed a part.

New Zealand,
Point
Gordon.

On August 7th an explosion occurred at Point Gordon, in New Zealand, causing the death of three men. A detachment of New Zealand engineers were engaged in the destruction of an old electric light pedestal with guncotton. For this purpose a hole had been bored in the concrete, and dry guncotton, broken in fragments, was being rammed into the hole with a wooden flagpole. When about 7 lbs. had been rammed in, the charge exploded violently, killing three men engaged. The detonator had not been inserted. No doubt the ignition was due to the grinding of fragments of guncotton with grit against the sides of the bore hole, the guncotton probably having been rendered more sensitive by the heat of the sun. This accident closely resembles one which occurred at Kirkee in 1896.*

On board
H.M.S.
"Melita,"
in the
Black Sea.

An accident occurred in September on board H.M.S. "Melita," in the Black Sea, due to the bursting of a gun during practice. One seaman was killed and others were wounded.

The
Gunce
Testing
Station,
Woolwich
Arsenal.

A slight accident occurred to one of us† on the 21st July, at the Home Office Testing Station. A quantity of powder was being destroyed by laying it out in a train on the ground and firing it electrically. One train had been fired, and about ½ lb. of powder had been laid for a second train, when it exploded, probably from a smouldering cinder blown from the first train, which had been fired about five minutes previously, the ground at the Testing Station being covered to a depth of some inches with half-burnt cinders. The accounts which appeared in the press were much exaggerated.

FOREIGN EXPLOSIONS.

Africa.

Tunis.

An explosion occurred on the 23th March, in a dynamite store at Jebul Jelud, in the vicinity of Tunis. A number of workmen were engaged in fastening a box of dynamite, using ordinary nails instead of screws, when the contents exploded. Two men were killed and another seriously injured.

* Annual Report for 1896, p. 42.

† Captain M. B. Lloyd.

21.4.1899
128/125



WASC
1572

N^o 124 Mill^o Mill Exploded April 21st 1899 Neg. C.11.
604 dust charge RFG



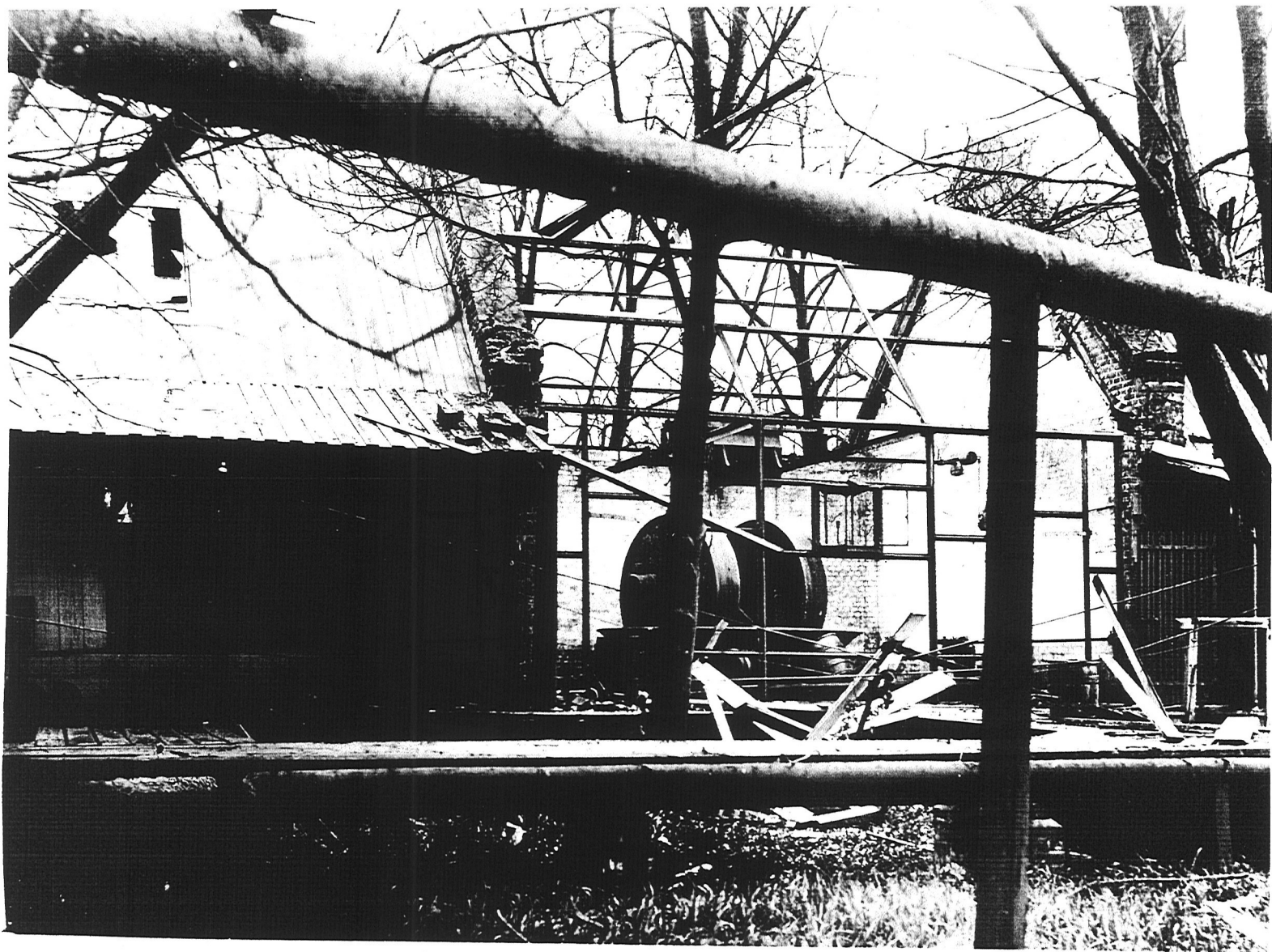
WASC
1573

N^o 125

Neg. C.12

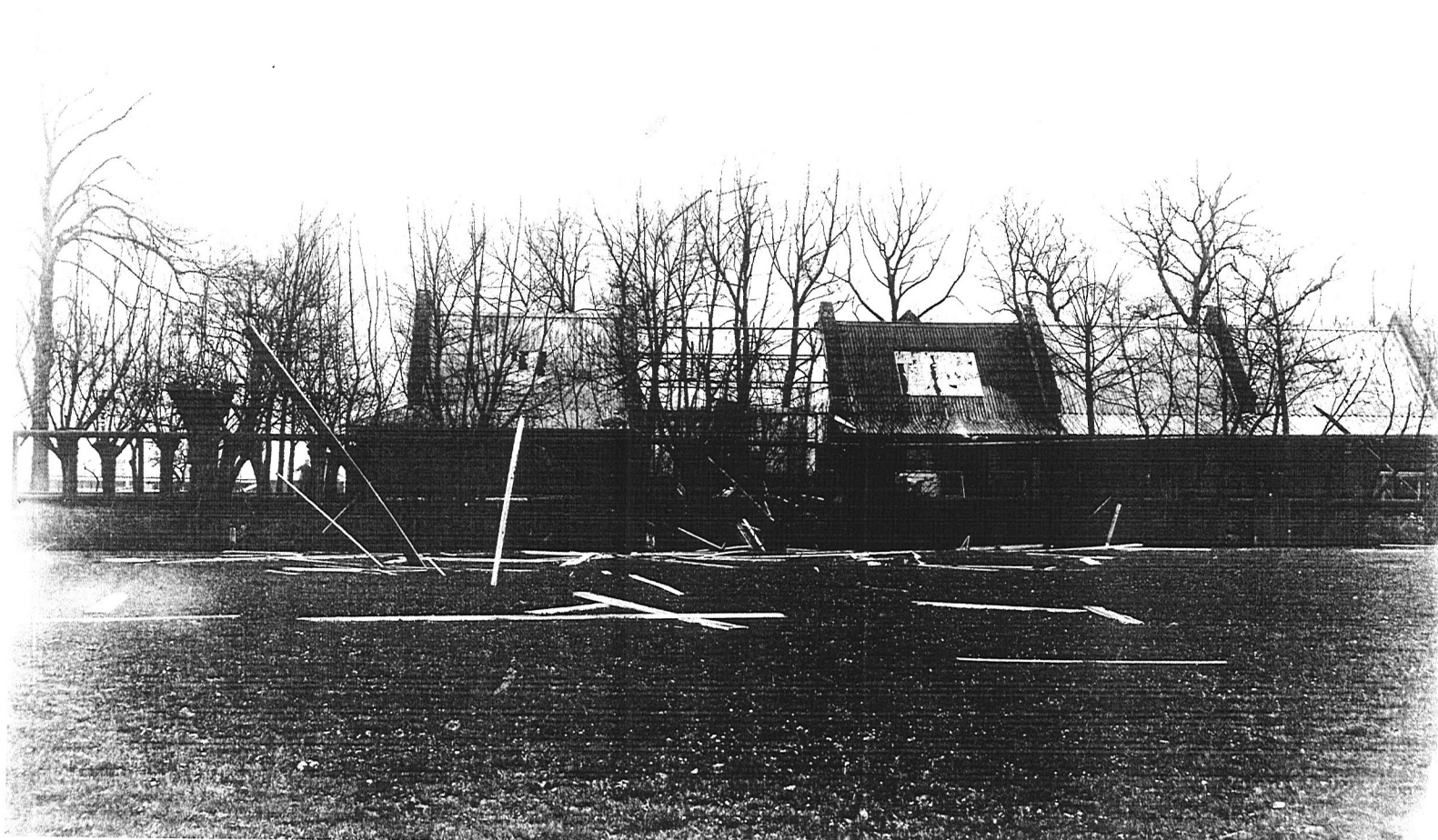
No 1 B. Mill. Exploded. 21.4. 1899.

128/125



21.4.1899 11.6.11.11

1572



21. 4. 1899 11 6 Mill.

1573