

## DESTRUCTIVE FIRES.

### FIRE AT THE LITHOFRACTEUR WORKS, MAIDSTONE.

SOME little consternation was caused in Melbourne and the suburbs about 10 o'clock on the evening of September 10 by two heavy explosions, which perceptibly shook the ground, and as a red glare was immediately seen in the direction of Footscray, it was surmised that either the new powder magazine had exploded, or that some of the buildings used for the manufacture of explosive materials which are located on the plains in that direction had caught fire. The Melbourne fire brigade promptly started for the scene, but upon reaching Footscray they ascertained that the scene of the fire was still some miles distant, and knowing there was no water available in that locality they reluctantly returned to town. The scene of the fire was the works of the Australian Lithofracteur Company, whose offices are at 8½ Little Collins-street. The works are situated between Braybrook and Maidstone, where the company have 51 acres of land. On the night of the fire the premises were left in charge of a workman named William Pickersgill, who had to draw the retort about half-past 9 o'clock. As a rule the gunnybags in which the nitrate of soda is received are carried outside of the building, but owing to the pressure of business on that day, this had not been done, and consequently there were a number of bags lying about thoroughly saturated with this chemical. When Pickersgill opened the retort door with a long-handled rake he, as usual, rushed outside the door of the building to get clear of the nitrous gas, and, unfortunately, some of the sulphate of soda—which is like melted wax when in a hot state—splashed out on to the empty gunny bags, which immediately flared up, and the building being of wood, of course everything was in a blaze in an instant. Pickersgill did all in his power to save what he could, but the materials on the premises were of such an inflammable character that it was but little he could do. In one portion of the building was a large vat, in which was a stout copper receiver containing about 2cwt. of sulphuric ether, which was used in producing ice for the manufacture of nitro-glycerine. The copper receiver was made of what is known as 9lb. copper—that is, nearly a quarter of an inch thick. When the fire reached this vat the heat became so intense that the ether expanded, and burst the receiver, causing a loud explosion, which was distinctly heard many miles away. There were in addition a number of jars of nitric acid in the building, and as the fire reached them there was a continual series of small explosions, which somewhat startled most persons who were in the vicinity. The whole of the building was completely destroyed, the only portion remaining being the tall chimney stack, which is uninjured. Mr. Mann, the manager of the company, estimates the damage done at £2,000, there being about £1,000 worth of acid on the ground. Of course none of this is covered by insurance, as no company would take the risk. There is, however, such a large demand for the company's products that strenuous efforts will be made to get to work again as quickly as possible, and the manager is yet in hopes of being in full swing in a fortnight.

### BURNING OF THE CHEMICAL WORKS AT YARRAVILLE

At 6 o'clock on the evening of September 11 a fire broke out at Messrs. Cuming, Smith, and Co.'s Chemical Works at Yarraville, and although the proprietors were on the spot at the time with a supply of Yan Yean water at hand, the whole of the premises and plant, with almost all the stock, were destroyed. Owing to the prominent position in which the works were situated, on the high ground close to the Yarraville Sugar Refinery, the fire was seen for a very great distance, and from the nature of the materials the flames were more than ordinarily vivid. The premises were built of wood, and comprised two large

of the materials the flames were more than ordinarily vivid. The premises were built of wood, and comprised two large chambers, 80 x 20 each, attached, with smaller buildings at the sides and river side. They were completely removed from other buildings, and for the last four years had been used by Messrs. Cuming, Smith, and Co. as a chemical manufactory. Stored in the buildings were something like 80 tons of sulphur, a very large quantity of nitre, and an enormous stock of acids in process of manufacture. The stock was very much more extensive than usual, the busy season being now at hand, and in view of this the proprietors had so far matured their plans for extending their premises that tenders were in on day of the fire for building another large store in connexion with the works. At about 6 o'clock in the evening Messrs. Cuming, Smith, and Campbell, the proprietors, had gone over the works, and were on the point of leaving when flames burst forth in the room near where they were standing. The water is laid on all round the building, and as a special precaution in the event of fire the hose is attached to the plug. It was so in this instance; and Mr. Cuming is convinced that in 30 seconds from the time when the fire was first seen, the water was playing upon it. The fire, however, ran along the nitre bags like a train of gunpowder, and catching the sulphur, the fumes nearly suffocated the men, and being to leeward, they were obliged reluctantly to leave that part of the premises. By this time the fire had run up the high stack of nitre and caught the rafters and shingles of the roof, extending to all parts of the building. The wind was blowing half a gale from the south at the time, and this materially assisted

the fire, which soon had full possession of the premises. The nitre burned with almost lime-light brilliancy, and being stacked in bags, as each bag took fire it gave a slight explosion. The sulphur burnt steadily, running in a lava-like stream to the roadway at the side of the premises, and sending away to leeward suffocating fumes, which occasioned considerable alarm in the lower part of Footscray. There was plenty of assistance, but the men found themselves helpless to do anything in the way of checking the flames. The plug at the north side of the building could not be got at for the fumes, and the hoses at command were not sufficiently large to connect anywhere else for a considerable time. The Footscray, Hotham, Melbourne, Carlton Brewery, and Emerald-hill brigades were there, and brought two jets to bear on the burning buildings, the Carlton connecting with the Sugarworks pipe, a considerable distance off. The exertions of the brigade were successful so far as to save the stables, workmen's house, and a large stack of sulphur, which was partly burnt. The condensing chambers, lined with lead, were utterly consumed, and about 100 tons of acids they contained were lost, the jars bursting as they became heated. The platinum still was also saved, although damaged considerably, and the tall brick stack stands as firm as ever it did. It was feared all along that the boiler would explode, but it did not. The fire burnt from 6 o'clock to about half-past 9 before it could be said to have been mastered. Messrs Cuming, Smith, and Co. estimate their loss at something like £10,000, the stock being in their opinion worth over £8,000. To meet this they are insured for scarcely £5,000 in the Imperial and Royal offices. But this is not their greatest loss. It will be fully three or four months before they can resume operations, and this will occasion great inconvenience to their customers and loss to themselves. From the strength and direction of the wind there was no chance of saving the buildings. The firm were so convinced of the completeness of its fire-extinguishing apparatus, that for two years they went on without insuring. The Yan Yean was laid on to every part of the buildings. The hoses were ready coupled, the buildings were never left without people in them to see that

ON TO EVERY PART OF THE BUILDING. THE MEN WERE READY, AND THE BUILDINGS WERE NEVER LEFT WITHOUT PEOPLE IN THEM TO SEE THAT ALL WAS SAFE, AND EVERY MAN WAS INSTRUCTED IN WHAT HE WAS TO DO IN THE EVENT OF FIRE. IT WAS FULLY BELIEVED THAT A HEAVY STREAM OF WATER COULD BE BROUGHT TO BEAR ON ANY PART OF THE BUILDING AT ANY TIME IN HALF A MINUTE. A MONTH OR TWO AGO THE MEN HAD AN OPPORTUNITY OF TESTING THEIR ABILITIES IN THIS RESPECT, AS A FIRE BROKE OUT IN THE BUILDING, BUT IT WAS OVERCOME IN A FEW MINUTES. THE ORIGIN OF THE FIRE IS NOT FULLY KNOWN, BUT THE PROPRIETORS BELIEVE THAT A SPARK FROM THE SHOVEL OF ASHES TAKEN FROM THE FURNACE MUST HAVE BEEN BLOWN ON TO THE NITRE BAGS, WITH THE DISASTROUS RESULTS ABOVE DESCRIBED.