

Mr. Buxton drew attention to the fact of the death of Professor Forbes, who had lately taken a prominent part in the Scientific meetings held within that building. He thought that at the first Scientific meeting of the Historic Society, they should record their sorrow for the event, and their regret for the loss which Science had sustained by his decease. In this suggestion the meeting unanimously concurred.

Dr. Hume made some remarks on Christmas Carols, their nature and antiquity; and quoted passages from some of the absurd ones of modern times. He also drew attention to one of the Chester Mystery Plays, of the Sixteenth century, entitled "the Nativity," showing that it abounded with local allusions, and illustrations of the manners of the period.

Mr. Poole exhibited and explained several instruments for the extraction of bullets from gun-shot wounds. They had been lent for the purpose by Mr. Thomas Reay. They included the ancient bullet forceps; the French screw for insertion into the bullet; and the more recent instrument consisting of a groove or scoop and retaining points.

On the subject of Decimal Coinage, some remarks were made by Mr. Richardson, in explanation of the table which he presented.

Mr. W. Milner, one of the patentees, exhibited and explained the following objects. Several locks, showing various principles of construction; water colour drawing, exhibiting a section of the door of a safe; mode of packing the door of a safe, so as to prevent the effects of drilling by thieves; mode of governing the bolts in locks of the largest size; model box, showing the various plans which have been patented for resisting fire; model of the new safe-door, which is retained by a sheet of metal all round.

The following Paper was then read:—

ON THE POWDER-PROOF SOLID LOCK, AND SAFE DOOR. *By W. Milner, Esq.*

Before exhibiting and explaining these objects, Mr. Milner entered into a brief account of the efforts which he had made for opposing an effectual resistance to fire. During a period of about fourteen years five successive patents have been obtained, improvements gradually suggesting themselves on a principle originally good. The chambers of the safes are filled with materials combining the mutual re-action of non conduction and vaporisation, so that no greater temperature can exist than 212° Fahr. in the interior of the safe, and among its contents. Safes constructed upon this principle have often been subjected to the most intense heat without injury to their contents.

The mode of fastening safes, so as to present obstruction to their opening, either through accidents at fires or in case of robbery, has also attracted great attention. The safes have therefore become currently known as "holdfast and fire-resisting." Within the last twelve months, however, a new mode of opening safes has been frequently resorted to by thieves, viz., the insertion of gunpowder into the lock, the explosion of which unfastened the door. Against such a mode of operation no safe of previous construction was secure, and thus the name popularly accorded became inapplicable.

The powder proof solid lock is intended to prevent the possibility of using gunpowder, and the principle of it is—presenting a solid mass of metal, except at the very small orifices for the insertion or withdrawal of the key. There is thus no chamber within the lock to admit of the accumulation of gunpowder through the keyhole. An ordinary lock, suited to a middling sized safe, constructed on the ordinary or old principle, would admit about half a pound of gunpowder, while larger locks would, of course, admit of a greater quantity. But the solid lock, known as the six lever, did not afford space for more than half a thimbleful of gunpowder. To obviate still further the possibility of applying gunpowder, Mr. Milner showed that the chamber in which the lock was placed was completely filled up with soft spongy wood, which, in the event of being penetrated with a drill, would of itself half fill the aperture. As a still further protection, however, this wood is shielded by a plate of hardened steel, which would resist almost any attempt at boring. The peculiarity of the new safe door is, that instead of being retained in its place by a single bar, or by



several bars, a sheet of metal is thrown out at top, bottom, and sides, almost as if the whole were a solid mass.

Allusion was made to several interesting experiments, in which official persons had been invited to witness the effects of these improvements. Whilst safes of the ordinary kind were readily blown to pieces by the insertion of gunpowder at the keyhole, those constructed upon this principle remained unchanged, excepting the accumulation of a little dirt from the explosion.

4th January, 1855. ARCHÆOLOGICAL SECTION.

THE REV. DR. THOM, V.P., in the Chair.

The Minutes of the last Meeting were read and confirmed.

The following Donations to the Society were laid upon the table:—

- From the Society of Antiquaries, London. *Archæologia*, vol. xxxv, part 2. Proceedings of the Society, Nos. 37, 38, 39, 40. List of the Fellows, 1854.
- From the Society of Antiquaries of Scotland. Proceedings of the Society, parts 1 and 2.
- From the Cambridge Antiquarian Society. Report No. 4, 1854.
- From the Kilkenny Archæological Society. Transactions, vol. ii, parts 2 and 3.
- From the Library and Museum Committee of the Town Council. Second Annual Report of the Free Public Library of Liverpool, and Derby Museum, 1854.
- From the Author, Beriah Botfield, Esq., F.R.S., F.S.A. Account of the Roman Villa, and of the Discoveries on Borough Hill, pamph. 4to. London, 1854.
- From the Author, John Harland, Esq. Memoir of the late John Just, of Bury, pamph. Manchester, 1854.
- From the Author, Charles Roach Smith, F.S.A. *Collectanea Antiqua*, vol. iii, part 4.
- From the Author, Robert Rawlinson, Esq. Report presented to the Board of Health, on a Preliminary Inquiry, respecting the Borough of Malton, pamph. 1854.
- From the Authors, W. J. Mason, Esq., Architect, and A. W. Hunt, B.A. The History and Antiquities of Birkenhead Priory, illustrated by Views, Plans, and Elevations, together with Views of the Churches formerly connected with the Priory. Dedicated to the Historic Society. Sm. fol. London, 1854.
- From Edward Benn, Esq. A View of the History and Coinage of the Parthians, by John Lindsay, Esq. 4to. Cork, 1852.
- From J. W. Whitehead, Esq. *Afbildninger fra Det Kongelige Museum for Nordiske Oldsager, i Kjöbenhavn. Ordneede og for Klarede, af J. J. A. Worsaae.* Kjöbenhavn, 1853.
- From Thomas Dorning Hibbert, Esq. A large perforated stone malleus, axe-shaped on one side.

Mr. Robson exhibited a bronze paalstab of an interesting shape. It had been found near Warrington, on the Cheshire side of the Mersey.

Mr. Clements exhibited the following articles. An ancient Padlock, found in an excavation in Bond street, London; a pair of ancient iron nut-crackers, on the principle of screw-pressure; two pieces of the Gun-money of James II; and several well executed photographic views.

Mr. Clements also exhibited two ancient oak panels with carving; and drawings illustrative of them from Caxton's edition of "Reynard the Fox."

Mr. Benn forwarded for exhibition the following articles, illustrative of his paper:—A Roman bead; four other beads of very singular forms; a red coloured bead, rude in form and material; thirty beads of various kinds; two with different colours laid on; a piece of glass ornament, belonging, it is supposed, to the Saxon period; some small beads, like garnet, said to have been found in a cairn.