and Institutions (Glasgow, M'Callum & Anderson),—*The Royal Academy: the Outsiders and the Press*, by T. J. Gullick (Hardwicke),—and *The Assault at Lambeth Workhouse:* Letter to the President of the Poor Law Board from Samuel Shaen; with an Appendix (Williams & Norgate).

LIST OF NEW BOOKS.

Andrewes's (L.) Manual for the Sick, 32mo. 2/6 cl.
Baedeker's Belgium and Holland, 12mo. 4/ cl.
Bette's (J.) The Confession of a Sinner, 12mo. 4/ cl.
Blunt's (J. H.) Key to Ancient Church History, 12mo. 2/6 cl.
Brebner's (W.) Twenty Lessons in French, 12mo. 4/ cl.
Brown's (Sir Thos.) Religio Medici, 18mo. 2/6 cl. limp.
Bruce's Calendar of State Papers, Domestic Series, 1637-8, 15/ cl.
Butler's (J. E.) Woman's Work and Woman's Culture, 8vo. 10/6 cl.
Clinton's (W.) Sword and Pen, cr. 8vo. 5/ cl.
Clough's (A. H.) Poems and Prose Remains, 2 vols. cr. 8vo. 21/ cl.
Coleridge's Christabel, and Lyrical and Imaginative Poems, 2/6
Cupples's (Mrs. G.) Norrie Seton, or Driven to Sea, cr. 8vo. 5/ cl.
Daisy in the Field, by Author of 'Wide Wide World,' 12mo. 3/6 cl.
De Bourrienne's Memoir of Napoleon Buonaparte, new edit. 3/6 cl.
Deede's (H.) Sketches of the South and West, cr. 8vo. 5/ cl.
De Foe's (D.) Works, roy. 8vo. 5/ cl.
Desart's (Lord) Only a Woman's Love, 2 vols. cr. 8vo. 21/ cl.
Ellis's (W. S.) Antiquities of Heraldry, illust. 18mo. 15/ cl.
Garrett's (E.) Occupations of a Retired Life, cr. 8vo. 6/ cl.
Haddan's (A.W.) Apostolical Succession in Church of England, 12/
Kempthorne's Brief Words on School Life, 12mo. 3/6 cl.
Ladies' Treasury (The), New Series, Vol. 6, royal 8vo. 5/6 cl.
Lawson's (G.) Diseases and Injuries of the Eye, fc. 8vo. 7/6 cl.
Leech's Etchings, with Letter-press, 4to. 6/ bds.
Lockhart's (J. G.) History of Napoleon Buonaparte, cr. 8vo. 6/ cl.
Majendie and Browne's Military Breech-Loading Rifles, 8vo. 5/ cl.
Orr's (Mrs. A. S.) The Roseville Family, 12mo. 2/6 cl.
Orr's (Mrs. S.) Mountain Patriots, 12mo. 2/ cl.
Punch, Vol. 56, 4to. 8/6 cl.
Rankine's (W. J. M.) Manual of Machinery and Millwork, 12/6 cl.
Rinaldo, a Novelette in Verse, 12mo. 3/6 cl.
Robertson's (J. A.) Gaelic Topography of Scotland, cr. 8vo. 7/6 cl.
Schenk's (Dr. D.) Sketch of the Character of Jesus, 8vo. 12/ cl.
Stevenson's (J.) Calendar of State Papers, Foreign Series, 1563, 15/
Temple Bar Magazine, Vol. 26, 8vo. 5/6 cl.
Trench's (Capt. F.) The Russo-Indian Question, cr. 8vo. 7/6 cl.
Walton's Clouds, their Forms & Combinations, 2nd ed., 3l. 13s. 6d.
Walton's Flowers from the Upper Alps, folio, 42/ cl.

ORIGIN OF SPECIES.

Caerdeon, Barmouth, June 7, 1869.

I have received a letter from Germany on the increase of the elephant, in which a learned Professor arrives at a totally different result from that of Mr. Garbett, both of which differ from that of your Correspondent "Ponderer." Hence you may perhaps think it worth while to publish a rule by which my son, Mr. George Darwin, finds that the product for any number of generations may easily be calculated:—

"The supposition is that each pair of elephants begins to breed when aged 30, breeds at 60, and again, for the last time, at 90, and dies when aged 100, bringing forth a pair at each birth. We start, then, in the year 0 with a pair of elephants, aged 30. They produce a pair in the year 0, a pair in the year 30, a pair in the year 60, and die in the year 70. In the year 60, then, there will be the following pairs alive, viz.: one aged 90, one aged 60, two aged 30, four aged 0. The last three sets are the only ones which will breed in the year 90. At each breeding a pair produces a pair, so that the number of pairs produced in the year 90 will be the sum of the three numbers 1, 2, 4, *i.e.* 7. Henceforward, at each period, there will be sets of pairs, aged 30, 60, 90 respectively, which breed. These sets will consist of the pairs born at the three preceding periods respectively. Thus the number of pairs born at any period will be the sum of the three preceding numbers in the series, which gives the number of births at each period; and because the first three terms of this series are 1, 2, 4, therefore the series is 1, 2, 4, 7, 13, 24, 44, &c. These are the numbers given by 'Ponderer.' At any period, the whole number of pairs of elephants consists of the young elephants together with the three sets of parents; but since the sum of the three sets of parents is equal in number to the number of young ones, therefore the whole number of pairs is twice the number of young ones, and therefore the whole number of elephants at this period (and for ten years onwards) is four times the corresponding number in the series. In order to obtain the general term of the series, it is necessary to solve an easy equation by the Calculus of Finite Differences."

Charles Darwin.

JOHN FORD.

July 12, 1869.

I cannot believe, in the absence of counter-evidence, that Gifford had any other authority for his odd quotation on the dramatist Ford than that of Gerard Langbaine, p. 219,—

"He was more addicted to tragedy than comedy, which occasioned an *old poet* to write thus of him,

Deep in a dump John Ford was alone got [*sic*]
With folded arms, and melancholy hat."

The words *old poet* might have been converted into *Time's poets* at press; but I am always disposed to excuse *compositors* and official *readers*. The man who describes himself as an *editor* should perform the duties which belong to the office, or bear the blame.

Bolton Corney.

RESTORATION OF OLD MONUMENTS.

Athenæum Club, July 7, 1869.

In the *Athenæum* of the 3rd inst. my name is mentioned in connexion with the cleaning of the monument of the Countess of Richmond as having suggested that the cleansing process should be confined to soap and water. This is not quite correct, as I recommended in addition the use of ammonia, to counteract the grease generally found in London dirt. These substances are, I am told, the only ones that have been employed, and the result appears to me very satisfactory. The face, hands, and fur edging had not been originally gilt, but probably painted, as there are upon them traces of one or more coats of paint. These portions have been simply washed with soap and water, and otherwise left intact. The contrast between them and the gilt dress is not altogether pleasing, but must have been quite as unpleasant when they were freshly painted. The effigies of Henry the Seventh and his queen being gilt all over do not exhibit this defect, and are, in my opinion, a great success. The black marble tomb of the Countess of Richmond is well preserved, and on being cleaned shows much of its original polish. It harmonizes with the gilt figure quite as much as it could have done when first executed.

I am at a loss to understand what is meant in the article by the removal of *patina*. There was not on the effigy much, if any, of what is generally understood by archæologists as patina, which is the actual surface of the metal altered by time, not an incrustation on the surface. In the present instance the gilding was masked by patches of a brittle black crust, adhering only to the minute imperfections in the gilt surface, and easily knocked off. I trust that the effigy will not be allowed to get so dirty again.

Augustus W. Franks.

THE ROYAL ACADEMY.

56, Euston Square, July 11, 1869.

May I ask of your courtesy permission to set myself right on a question of more interest (I must confess) to myself than to your readers?

In 1868, along with another writer, I published some 'Notes on the Royal Academy Exhibition.' Considerations of time and of previous engagements alone prevented my doing the like this year. It was not till yesterday that I had any distinct knowledge of the fact that a pamphlet, uniform in title and appearance with that wherein I was concerned, and without any author's name to it, had been issued by the same publisher for the current Academy Exhibition. In this pamphlet I find the observation: "Mr. Ward is past all praying for; the lesson we read him last year has had no effect, and this picture is worse, if possible, than the atrocious 'Royal Marriage.'" Now the critic of the 'Royal Marriage,' last year, was myself; and if there was any "we" who therein "read a lesson" to Mr. Ward, that "we" was I. If anybody refers back to what I said about the 'Royal Marriage,' he will find its tone very different from what might be surmised from this remark in the new pamphlet. The wording of the remark might seem to imply, to some readers, that the "we" of 1869 is the writer of the critique of 1868. I should be very sorry to be supposed capable of the ludicrous impertinence of "reading a lesson," even in remote intention, to so distinguished a painter as Mr. Ward—or, indeed, to *any* professional painter. All I have ever done in writing about works of art is to express my sincere opinion, such as it is, for the consideration of any one who may choose to read it: artists and their works are reading lessons to me day by day—not I to them. I know not who has written the Academy Notes for 1869, or what may be *his* qualifications for "reading a lesson" to Mr. Ward; but I do know that I have and profess no such qualifications, and that the writer has much misreported me in saying that "we"—*i.e.* I—ever read a lesson to the painter of 'Lord Chesterfield's Ante-room,' 'Hogarth's Studio,' 'Charles the Second's Death-Bed,' and many other works of eminent renown.

W. M. Rossetti.

CHEDORLAOMER OR AMRAPHEL.

July 6, 1869.

In the *Athenæum*, Nos. 2037 and 2041, I published an account of the conquest of Babylonia by the Elamite king, Kudur-nankhundi, and I then expressed my conviction that Kudur-nankhundi was the same king as the Kudur-mabug of the Mugheir bricks, and the Chedorlaomer of Genesis. In the course of my work at the British Museum I have found evidence which proves the identification of Kudur-mabug with Chedorlaomer to be correct, and I now communicate it to your readers.

From the brick-inscriptions it appears that Kudur-mabug did not take the title of King of Babylonia, but placed his son on the throne of that country; and as, according to the Genesis narrative, Chedorlaomer was accompanied by a contemporary King of Shinar, named Amraphel, it has appeared to me that if the name of the son of Kudur-mabug could be read Amraphel, or, as the Septuagint more properly has it, Amarphal, it would not only identify this king, but prove Kudur-mabug to be the same as Chedorlaomer. I alluded in my former letters to the fact of Kudur-mabug making his son King of Babylonia, but I neither suggested any reading of the name nor proposed this identification, as I was uncertain about the phonetic value of the first character. The meaning of the name is, "servant of the Moon God." Besides the Semitic names and words belonging to this period, printed in Vol. 1. of 'Cuneiform Inscriptions of Western Asia,' I have found several other undoubted Semitic names on contemporary inscriptions. Among these occurs the name Ismi-il (Ishmael). For this reason I have been inclined to read the royal names belonging to this period as Semitic. In the name of the son of Kudur-mabug, the Moon God is expressed by two characters, the Semitic sound of which was *bel-lih*, sufficiently near the *phel* or *phal* of Genesis; but the phonetic value of the first character I have only recently found in a bilingual tablet, K.224, in the words amar-ka, "thy servant." I have long known of the use of the form *amir* for a servant in the Assyrian inscriptions, but until now I had not been able to connect it with the character in question. Thus the reading of the whole name is Amar-bellih, which is, I have no doubt, the Amarphal or Amraphel of Genesis; and it follows, of course, that Kudur-mabug is Chedorlaomer. In confirmation of the Elamite origin of Kudur-mabug, it may be mentioned that his father's name was Simti-silkhak, and the element silkhak has only been found in one other case. In the name of a later Elamite King, "Silkhak-susinaq," Kudur-mabug is called "Abda" of Syria. The meaning of Abda is not certain, but it is generally supposed to be "conqueror," or "ravager." I have never found Abda rendered into Assyrian, but the similar word, *abdia* or *abdie*, is given as equivalent to "sanan," which is used in Assyrian with the meaning "to fight": see 'Cuneiform Inscriptions of Western Asia,' vol. i., page 9, line 76. Connected as these kings are with the Genesis narrative, I must say I am strengthened in the opinion I before expressed, that these words refer to the campaign in which Chedorlaomer first conquered Syria.

Since I wrote my former letters I have not met with any evidence to confirm my opinion that Kudur-nankhundi, who reigned B.C. 2290, was the same as Kudur-lagamar or Chedorlaomer. In fact, the name Nankhundi only occurs once on the mythological tablets, although it is common as an element in the names of Elamite kings. On the other hand, Lagamar, or Lagamal, often occurs in the inscriptions. Nankhundi may be the Elamite equivalent of Lagamar. I hope yet to find some evidence to decide this point.

A few words on the other names mentioned in Genesis xiv. may here be of interest. The name Tidal in our version is rendered Targal in the Septuagint, and as in the other cases I must prefer