

reaches us through the aid of our best instruments. Were all the stars in existence of one pattern and one uniform brightness, and scattered broadcast in space, our great telescopes would count up more nearly the numbers belonging theoretically to their magnifying powers than they now do, as will be readily understood by considering the ratio in which an increase of radius increases the cubic contents of a sphere. If the distances imputed to several of our stars from parallax be true, these photometrical researches show our glorious luminary to be a very small star indeed; "and to the human understanding thus enlightened, more than ever must the heavens declare the glory of God."—*London Review*.

## 2. HABITS OF THE MOLE: ITS VALUE TO THE FARMER.

*Recreative Science* for this month contains a short but entertaining account of the captivity and death of a mole. Professor Owen, at the British Association the year before last, showed, in an admirable paper on the anatomy of that animal, how much was yet to be learnt of the structures of our indigenous animals, and these "Notes on the Mole," by the Rev. J. G. Wood, in Messrs. Groombridge's entertaining magazine, show how well worthy, too, of accurate study by the naturalist our native animals are. Some young friends captured a mole, and brought it to that naturalist, secured in a large box. It ran about with great agility, thrusting its long and flexible snout into every crevice. A little earth was placed in the box, when the mole pushed its way through the loose soil, entering and re-entering the heap, and in a few moments scattering the earth tolerably evenly over the box, every now and then twitching with a quick, convulsive shaking the loose earth from its fur. At one moment the mole was grubbing away, hardly to be distinguished from the surrounding soil, completely covered with dust; the next instant the moving dust-heap had vanished, and in its place was a soft, velvety coat. The creature was unremitting in its attempts to get through the box, but the wood was too tough for it to make any impression, and after satisfying itself it could not get through a deal board, it took two attempts to scramble over the sides, ever slipping sideways, and coming on its forefeet. The rapid mobility of its snout was astonishing, but its senses of sight and smell seem to be practically obsolete, for a worm placed in its track within the tenth of an inch of its nose was not detected, although no sooner did its nose or foot touch one, than in a moment it flung itself upon its prey and shook the worm backwards and forwards and scratched it about until it got one end or other in its mouth, when it devoured it greedily, the crunching sound of its teeth being audible two yards away. Worms it ate as fast as supplied—devouring fourteen in thirteen minutes, after which it was supplied with a second batch of ten. It was then tried with millipedes, but invariably rejected them. Having heard that a twelve hours' fast would kill a mole, Mr. Wood determined to give his captive a good supper at eight and an early breakfast the next morning at five or six. So he dug perseveringly a large handful of worms and put them in the box. As the mole went backwards and forwards it happened to touch one of the worms and immediately flew at it, and while trying to get it into its mouth the mole came upon the mass of worms and flung itself upon them in a paroxysm of excitement, pulling them about, too overjoyed with the treasure to settle on any individual in particular. At last, it caught one of them and began crunching, the rest making their escape in all directions and burrowing into the loose mould. Thinking the animal had now a good supply, two dozen worms having been put into the box, Mr. Wood shut it up with an easy conscience; but it happened, the following morning, that the rain fell in a perfect torrent, and, hoping for some remission, he waited until nine o'clock before he opened the box. Twelve hours had just elapsed since the mole had received its supply, and as it had taken probably another hour in hunting about the box before it had devoured them all, not more than eleven hours had probably elapsed since the last worm was consumed. But the mole was dead. "I forgot," Mr. Wood says, "to weigh the worms which he devoured, but as they would have filled my two hands held cupwise, I may infer that they weighed very little less than the animal who ate them." The extreme voracity and restless movements of the little creature here recorded, show its value to the agriculturist "as a subsoil drainer who works without wages," and its great usefulness in keeping the prolific race of worms—themselves useful in their way as forming the main, the fertile soil itself.—*London Review*.

## V. Biographical Sketches.

### No. 37.—THE RIGHT HON. LORD CLYDE.

The *Persia* brings the intelligence of the death of one of England's most honoured soldiers, better known by his former name of Sir Colin Campbell. He was born in Glasgow, October 20, 1792.

He entered the army in May, 1808, and was engaged in the descent upon Walcheren, at Barossa, Corunna, under Sir John Moore, and at the defence of Tarifa. He was severely wounded in the thigh at the passage of the Biadossa, and was twice wounded in 1813, at the assault on St. Sebastian, at which place he displayed all the soldierly qualities which ever after distinguished his career. As Captain Campbell he was in active service in America in 1814-15, and in 1823, as brigade major of the troops, he was engaged in quelling the insurrection in Demerara.

From 1836 to 1840 he was governor of Nova Scotia, when he became governor of Ceylon. In 1842, having meanwhile become lieutenant-colonel, he was actively employed in China, and towards the end of the year became a full colonel. His Indian career commenced about 1844, when he led the 39th at Maharajpore. Through the Punjaub war (1848-9) he commanded the third division of the army under Lord Gough, and distinguished himself at Ramnugger, at the passage of Chenab, and other hard fought battles. In 1849 he was created a K. C. B., and received the thanks of Parliament and of the East India Company for his services at Goojorat. Sir Colin returned to England in 1853, with his fame already established as a General of consummate ability. On the breaking out of the Crimean war he accepted the command of the Highland brigade. In 1854 he was promoted to the rank of Major-General, in consideration of his gallant services; and in the following year he was made a Knight Grand Cross of the Bath. In 1856 he attained the rank of Lieutenant-General. On the outbreak of the Indian mutiny, he was appointed to the chief command of the army in India. His exploits at Lucknow and other places are too well known to our readers to require repetition here. In 1858 he was created a peer by the title of Lord Clyde. He returned to England in 1859, where he received the thanks of both Houses of Parliament, and in 1860 was appointed to the Colonelcy of the Coldstream Guards. For some months previous to his death his health was not good, and it was evident to his friends that he was destined soon to pass away. His death was hastened, it is thought, by the loss of his early friend, Lord Herbert, of Lea, whom he loved and mourned with deep affection.

### No. 38.—JOHN S. BARTLETT, ESQ., M.D.

John Sherren Bartlett, M.D., died last month, at his residence in New Jersey, in the 73rd year of his age. The funeral took place this morning at St. Paul's in this city, and the remains will be removed to Boston for interment. Dr. Bartlett was born in Dorsetshire, England, studied medicine in London, and received an appointment in the British navy in 1812. While on his way to the West Indies, he was taken prisoner, and held as such in Boston till 1813. After the war ended he married in Boston; and pursued the practice of his profession. In 1822 he removed to this city, and established the *Albion* newspaper, which he conducted for twenty-five years, and subsequently edited the *Anglo-Saxon*, in Boston. Dr. Bartlett was much respected, and was held in great regard not only by American citizens but by British residents. He was one time president of the St. George's Society, and in 1857 served as British Consul at Baltimore.—*N. Y. Evening Post*.

### No. 39.—WILLIAM WELLER, ESQ.

We record with much regret the death of William Weller, Esq., the Mayor of this Corporation, who died on the 21st ultimo. He was a man of good business capacity, and served the town efficiently in various official positions,—as President of the Board of Police soon after the town was incorporated, and more than once as Mayor. He was in the 65th year of his age. His funeral took place this afternoon and was largely attended. The principal places of business were closed during the hour of the interment.—*Cobourg Star*.

## VI. Miscellaneous.

### THINGS THAT NEVER DIE.

The pure, the bright, the beautiful,  
That stirred our hearts in youth,  
The impulse to a worldless prayer,  
The dreams of love and truth;  
The longings after something lost,  
The spirit's yearning cry,  
The strivings after better hopes—  
These things can never die.

The timid hand stretched forth to aid  
A brother in his need,