

cave of Trophonius—the moving tripods which Apollonius saw in the Indian temples—the walking statues at Antium, and in the temple of Hierapolis—and the wooden pigeon of Archytas, are specimens of the mechanical resources of ancient magic.

But of all the sciences, *Optics* is the most fertile in marvellous expedients. The power of bringing the remotest objects within the very grasp of the observer, and of swelling into gigantic magnitude the almost invisible bodies of the material world, never fails to inspire with astonishment even those who understand the means by which these prodigies are accomplished. The ancients, indeed, were not acquainted with those combinations of lenses and mirrors which constitute the telescope and the microscope, but they must have been familiar with the property of lenses and mirrors to form erect and inverted images of the objects. There is reason to think that they employed them to effect the apparition of their gods; and in some of the descriptions of the optical displays which hallowed their ancient temples, we recognise all the transformations of the modern phantasmagoria.

#### TOWNS IN THE EAST.

GENERALLY in the towns of the East the streets are very narrow, and little better than dark passages. In Grand Cairo, if you unfortunately meet a string of masked beauties upon donkeys, you must make a rapid retreat, or resign yourself to be squeezed to a mummy against the wall, for daring to stand in their course, if your curiosity should tempt you to do so. The Chandy Choke, in Delhi, is, however, a great exception to this rule, and is perhaps the broadest street in any city in the East. The houses in it have occasionally balconies in front of them, in which the men sit, loosely arrayed in white muslin, smoking their hookahs; and women, who have forfeited all pretensions to modesty, are sometimes seen unveiled, similarly occupied. The sin of so populous a place is very great, for every house seems as well furnished as a hive of bees. The population is near 200,000 souls, in an area of seven miles in circumference, which is the extent of the wall of modern Delhi. The great peculiarity of an eastern town is, that every thing is done in public: the people talk as loudly as they can, and sometimes, when engaged in unimportant matters, seem to be scolding each other in the most outrageous manner: the neighing of horses, the lowing of cattle, the creaking of cart-wheels, and the clinking of pewterers' hammers (for all occupations are carried on in a little open space in front of each shop), are beyond all endurance. The trumpeting noise of the elephants, with the groaning of the camels, varied occasionally by the roaring of a leopard or a cheator (which animals are led about the streets hooded to sell for the purposes of hunting), with the unceasing beat of the tom-tom, the shrill pipe, and the cracked sound of the viol, accompanied by the worse voices of the singers, are enough to drive a moderately nervous person to desperation. Among the natives of Mahometan towns there seems to be a familiarity of manner that places every one in a moment at his ease. If a stranger enter the town and find a group engaged in any amusement, he will not scruple to join it instantly, and take as much interest in its pursuit as if he had known the members of it all his life; and then, perhaps, tendering his pipe to one of the party, or receiving one from it—a sure sign of intended hospitality—sit down and relate his history with as much frankness as if he had met a brother. The houses are generally irregular in their construction, and not unfrequently curiously decorated. Different coloured curtains hang before the doors; variegated screens serve as blinds to the windows; and the custom of hanging clothes, particularly scarfs of every hue, pink, blue, yellow, green, and white, on the tops of the houses to dry, make them look as gay as a ship on a gala day with all its colours flying. The clouds of dust from the number of equipages, with the insects that surround the pastry-cooks' shops, are the most intolerable plagues of all. The rancid smell of the nasty-looking mixtures that are constantly in course of manufacture before you, with the general stench of the town, is a sign that it is seldom indeed that a musk caravan from Koten passes through it. I think, in the *Arabian Nights' Entertainments*, there is a story of a princess threatening to have a confectioner beheaded, if he did not put pepper in his tartlets. However despotism it may appear in this lady, I cannot help thinking it a just satire upon the pastry of the East; for to season it out of all taste of its own fundamental ingredients, is the only way to make it palatable. This cook, I think, nearly fell a martyr to the honour of his profession, and refused to be dictated to; and I do not believe any thing would induce his brethren of the present day to improve their confectionery. Riding through the town requires much management and some skill. It is unnecessary to shout, push, and kick the whole way, to warn the multitude to get out of the road. Occasionally you have to squeeze past a string of loaded camels, or start away from a train of elephants; and if your horse be frightened at these last animals, which is frequently the case, it needs some ingenuity to avoid being plunged into the cauldrons which simmer on each side of the way in front of the cooks' shops. The fear is mutual very often; and the elephants, in attempting to escape from the approach of a horseman, may well be supposed

to throw the whole street into a fine confusion. In one of my strolls through the city on horseback, I was nearly swept away by a species of simoom, caused by the progress through the dirty town of some important personage travelling in state. When overtaken by such a storm, it is a long time before you can recover either your sight or position. The idle cause of all this tumult was repusing quietly in a shining yellow palanquin, tricked out with gilt moulding in every possible direction. He was preceded by a large retinue of strange-looking beings, mounted on horses and dromedaries, and dressed in the most fantastic style. The animals were covered with scarlet housings, bound by gold lace, their bridles studded with shells; round their necks were collars of gold or silver, with little drops hanging to them, that kept time most admirably with their joggling measure. The camels were likewise adorned with bells. The riders were in large cloth dresses, capans, reaching from their necks to their heels, often only on each side, from the hip downwards, for the convenience of sitting on horseback. These were fastened round the waist by a cotton shawl, either of white or green, in several folds. The common colours of the coats were red and yellow. A camiter hung by their sides, and they bore matchlocks upon their shoulders. A helmet, sometimes of steel, and sometimes of tin, pressed close to the head, in shape not unlike a dish-cover; a pair of jack-boots reaching to the knee, and fitting quite tight to the leg; the loose trousers gathered above, giving to the thigh the appearance of being the seat of a dropsy; and a pair of spurs, resembling two rusty weathercocks, completed the equipment of these splendid retainers. Then followed a mass of servants on foot, some naked, and some with their limbs bare and bodies covered. They carried sheathed swords in their hands, and shouted out the titles of their lord, at frequent intervals, in their passage through the city. They were followed by the stud, each horse beautifully caparisoned, and led by a groom; then came the elephants with their showy trappings, gilt howdahs, and umbrellas of gold or silver tissue. The palanquin, bearing the owner of these motley assemblages, at length appeared, and was followed by a guard similar to the one that preceded him. At a distance these processions look very grand, particularly the elephants and their castles; but when near, there is a great tawdry and ill-assorted tinsel. The horsemen of the party add greatly to the interest of the scene, by exhibiting their evolutions upon the line of their route. Some tilt at each other with their spears; and others affect to pursue, with drawn swords, the runaways of the party, who in turn chase their followers back into the ranks. In the management of the horse, and the use of the spear, the natives are generally very skillful; but some of the irregular cavalry of the country excel all belief in these exercises. They will gallop at a tent-peg, stuck firmly into the ground, and divide it with the point of the spear, not abating their speed in the least, and I have seen a troop of men, one after the other, break a bottle with a ball from the match-lock, while flying past at a racing pace.—*Skinner's Excursions in India.*

#### THE PEASANT'S SONG.

[From a volume just published, under the title of "Songs and Poems, by James Beattie, journeyman mason." The author, we understand, resides at Leetown, near Errol, in the Carse of Gowry.]

NOW the sun is westering down,  
And our toil is nearly done;  
When the caller gloamin' comes,  
We will seek our cottage homes;  
There our weary limbs we'll lay,  
On our bed of rest till day;  
Soft and still shall be our sleep,  
Under midnight shadows deep.  
Our good angel from on high,  
There shall watch us with his eye,  
Though with toil our sinews slack,  
Morning brings their vigour back.  
Love and mercy at our side,  
Sorrows we may well abide.  
Tender ties our life endears,  
Overcoming grief and fears.  
Ere the morning sun shall rise  
Glorious in the eastern skies,  
Wandering forth in love and joy,  
To our rude but lov'd employ;  
Grateful for our happy days,  
We our morning song shall raise;  
Telling to the east and west  
How the sons of toil are bless'd.

#### DESCRIPTION OF THE NATURE OF FLAME.

Flame is the rapid combustion of volatilised matter. The tallow or the wax is melted and drawn up to the top of the wick of a candle. Here it is boiled and converted into vapour, which ascends in the form of a column. This vapour is raised to such a temperature that it combines rapidly with the oxygen of the surrounding atmosphere, and the heat evolved is such as to heat the vapour to whiteness. Flame, then, is merely volatile, combustible matter, heated white-hot. The combustion can only take place in that part of the

column of hot vapour that is in contact with the atmosphere, namely, the exterior surface. The flame of a candle, then, is merely a thin film of white-hot vapour, enclosing within a quantity of hot vapour, which, for want of oxygen, is incapable of burning. But as it advances upward in consequence of the outward film being already consumed, it gradually constitutes the outer surface of the column, and assumes the form of flame. And as the supply of hot vapour diminishes as it ascends, and at last falls altogether, the flame of a candle gradually tapers to a point.—*Dr Thomson on Heat and Electricity.*

#### ADVENTURE WITH A RHINOCEROS.

A CORRESPONDENT of the Bengal Hurkaru says, that, being on a visit at the quarantine station at Edmontone Island, he was informed that a rhinoceros had several times made his appearance close to the residence at Middleton Point, on Saugor Island. I was requested (says he), being a killer, to go over and try my luck. I did so, and made preparation for a regular set-to. A stage being erected on a tree close to a tank at which my customer was in the habit of drinking every night, I there, in company with the resident at the Point, took my seat at eight o'clock in the evening, it being then quite dark. My first cheeroot had not been quite burnt out, when a noise from the jungle in our rear warned us of an approach. From the noise, I thought it was an elephant. Our anxiety, you may be sure, was very intense; however, in a very few minutes a very large animal showed his head within thirty yards of us. I saw it, and immediately pointed it out to my companion through the gloom, and we both agreed that it was our friend. His approach was slow, grazing as he came along, until almost immediately under us, and then we fired. He seemed a little astonished, but did not move. The second volley (for we were well armed, having two double-barrels each) disturbed him; he turned sharp round and made off with a curious snorting noise like an overgrown hog. He had the benefit of eight balls, which were, at the distance of fifteen yards, poured upon his impenetrable hide; but he seemed to mind them no more than so many peas. Ten minutes had hardly elapsed before he came again, but not on the same ground; he strolled along rather cautiously towards the tank. We had another beautiful view of him, and again fired together as before, when I am sorry to say the gun of my friend burst, blowing off two of his fingers on the left hand, and slightly wounding me in the arm. Nothing was now left for us but to go home; and at that time of night, and in such a place, with such an animal in our neighbourhood, it was no joke. My friend took a cutlass, and I took two of my guns. We cautiously descended the tree, and made good our retreat.

A month and a half passed before the hand of my friend had healed, when we determined upon another attack, but in a different manner. The artillery of the station (two six-pounders) were placed in his path, and there we agreed to watch his approach. Every thing was got in readiness. The moon was favourable, and we took our station at the old look-out tree in the evening. The first start which we made was ominous, a tiger springing almost from under our feet as I was leveling the guns. One was pointed to sweep the corner of the tank, and the other to take him if he came in a different direction. A long tedious night passed, and no rhinoceros. The tiger above mentioned prowled about the tree all night, but we could not get a shot at him. Another night passed in like manner, but the third night at ten o'clock our old friend once more showed himself. Down I jumped to my post at the gun, but he saw my movements, and vanished. Nearly an hour passed before he again made his appearance; but when he did come, I got him right before my gun; and as I was raising the match to fire, he charged full at me. But he was too late; the fatal spark had done its duty, and the canister met him half way. I lost no time in getting up the tree, for you may be sure the idea of his ugly horn being near me was not at all comfortable; it gave me, however, surprising agility, and I stumbled over my friend, who was coming down to assist me. In the midst of the confusion, a terrible groan proclaimed our victory. The next morning we found he had run nearly fifty yards, and there fell to rise no more. Many of the shot had taken effect. One (the fatal one) in the left eye, three in the shoulder, one in the flank, passing through his kidney and the hind quarter. His dimensions were twelve feet in length, without the tail, which made two more, seven feet high, and thirteen in circumference. Altogether he is a perfect monster. On opening him, one of the leaden balls of our first attack was found in his stomach, and appeared to be mortifying the flesh all round. I had a tough job to skin him, &c. Five of our balls were cut out. The flesh of the animal was greedily devoured by the famished crew of a Burmese boat, which arrived at the point in distress.—*Alexander's East India Magazine.*

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