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Joseph Banks, and doctor Solander.

# The Weekly Mirror, Is Printed and Published every Friday,

BY H. W. BLACKADAR, At his Office, nearly opposite Bauer's wharf, and adjoining north of Mr. Allan M'Donald's. WHERE

All kinds of Job Printing will be executed at a cheap rate.

Torms of the MirrorFive Shillings per annum Payable in advance.

#### NATURAL HISTORY.

#### THE CROSBILL.

We suppose it is well known to most of our readers, that there is a bird called the Crossbill, on account of the fact that the extremities of the bill cross each other. It is an instance of imperfect adoption, as has been alleged by those who charge God foolishly. The ingenuity and research of Dr. Paley even did not enable him to give a good and satisfactory answer to this allegation. \_Lt.remained, for aught we know to the contrary, to Mr. Oaks, or Ipswich, to make a full discovery of the use of such a formation of the beak of the bird. We heard him in a lecture give an account something like the following. Being out one day in quest of some new variety, he shot at one upon a pine tree, having broken its wing, it fell into his possession, and proved to be a Crossbill. He immediately resolved to find out, if possible, what was the substance on which it feeds, and the use of such peculiar conformation of the mouth. On presenting to it several substances, he found it unable to pick them up, and after many efforts to find a substance which it could or would cat, he almost despaired of succeeding, and feared that the bird must die of starvation.

He suddenly bethought him, however, that the bird was found on a pine tree. He brought, therefore, some of the seed of the pine, (i. e.) buds some four inches long, composed of scales, and laid them before the almost famished hird, when immediately he put his peculiar apparatus into successful operation, an indication that he felt himself at home. He thrust his closed beak between the scales, then opening his mouth so that the scales were so far distended as to loosen-the red seed, which has a thin membrane to it, to serve as a wing to favor its wide circulation with his slimy tongue, which stuck to this membrane, he drew the seed into his mouth, and then withdrew his Mr. Green, as astronomer, Mr now sir.

beak. But how should he swallow the seed ! with this husky membrane attached to it? This difficulty he removed in the following manner. With much dexterity he turned the seed so as to place the membrane between the crossed part of his beak, which he used as a pair of scissors, and trimmed his seed to his liking and swallowed it. All this was done with so much facility that he very soon satisfied his hunger. This one fact is worth to fortune to naturalists, and demonstrates to the humble believer in the Supreme Being, that it is the height of presumption for any man to allege that anything is made in vain. ' Not a sparrow falls to the ground without his notice,' not a bird is fed without his all-wise provision for

#### BIOGRAPHY.

#### JAMES COOK.

James Cook, a celebrated navigator, was born at Marton in Yorkshire, in 1728. His parents were in humble circumstances, and at an early age he was apprenticed to a shopkeeper at Snaith, but having an inclinindentures, and he bound himself to Mr. Walker, a shipowner in the coal trade at Whitby. On the breaking out of the war in 1755 he entered on board the Eagle mun of war, and obtained, in 1759, a warrant as master. He served in that capacity at the reduction of Quebec, and while on that station was employed in taking the soundings of the river St. Lawrence; afterwards he was engaged in making a chart of the same river, which he executed with great accuracy. He was next with lord Colvil, in the Northumberland, at the retaking of Newfoundlaud, of which coast he made a survey. On his return to England in 1762 he married a repectable young woman at Barking, in Essex, for whom he had always the tenderest regard. The year following he accompanied captain Graves, governor of Newfoundland, where he made many curious researches, and observed a solar eclipe, an account of which he transmitted to the royal society. It being resolved to send out persons to Otaheite, in the South sea, for the purpose of observing the transit of Venus, in 1769, Mr. Cook was selected for the command, and raised to the rank of lieutenant. In August 1768, he sailed in the Endeavour, accompanied by

transit was accurately observed, and July 13th our navigator left Otaliette on a voyage of discovery, in which he discovered a number of Islands, to which he gave the name of Society islands. October 6th he anchored at New Zealand, which he circumnavigated. From thence he sailed to New Holland, his account of which occasioned a settlement there, named by him Botanv He arrived, after many dangers, June 12, 1771, and in August following was appointed a commander in the navy. The existence of a southern continent home still an undecided question, captain Cook was employed in another voyage to ascertain the point, and he accordingly sailed with two s ips, the Resolution, commanded by himself, and the Adventure, by captain Furneaux, July 13, 1772. In this voyage they explored the southern hemisphere as high as latitude 71 10, amidst immense fields and mountains of ice, where a ship had never been; but in the course of it the two vessels parted, and never joined each other again. Captain Cook, after refreshing at Otaheite, sailed to the westward, and disation to the sea, his master gave up his covered a groupe, which ho called the Friends ly isles. He next fell in with the islands discovered by Quiros, and having surveyed them all, denominated them the New He next discovered a large Hebrides. island, which he called New Caledonia; and another, named by him Norfolk island, which has since been colonized. many other additions to our geographical knowledge, but without attaining the main object, hearrived safe at Spithead, July 30, 1775, during which perilous voyage, only one man had died out of 118 on board the Resolution. He was now raised to the rank of post captain, and appointed to a post in Greenwich hospital, The admiralty having resolved to determine the disputed question, whether there be a northern communication between the Atlantic and Pacific oceans, Captain Cook willingly volunteered his services on the occasion, and July 12, 1776, sailed from Plymouth in the Resolut 1, accompanied by another vessel called the Discovery. He carried out with him a native of the Society islands, named Omai, whome he had brought to England at his own request. After touching at Otaheite, the captain's favourite spot, he sailed to Huaheine, where Omai was landed with his presents, which he had received in England.

sailing from thence, our navigators fell in ] with a groupe of islands, to which, out of compliment to the first lord of the admiralty, was given the appellation of the San Iwich islands. Then steering for the north-west coast of America, they arrived at a place called Nootka Sound. After sailing as high as lat. 74 44 N. and being opposed by an impenetrable mass of ice, the ships were obliged to shift their course to the south, and No ember 26, 1778, reached the Sandwich iolan ls. Here they met at first with a kind reception from the natives, but the daring thefts committed by the savages produced quariels, which proved fatal to our navigator, Tebruary 11, 1779. He left a widow and several children, who were provided for by the royal bounty.

# THE THREE WISHES.

#### Continued.

" Now this poor man, who had never in his life wielded a sword, and who had no ambition to do so, and who was but an indifferent speaker, was, nevertheless, a wise mathematician, and had wonderful skill in every mechanical science then known, which he had the ability, as is common in such cases, to apply admirably to every emergency. But he might as well have had no science at all, for the respect it won him; and though he was a little chagrined that his well-meant proposition had met no better reception. he shut to his doors, sate down in his house, and turned over his schemes in his head, till he was more sure than ever of their success. In the meantime, the enemy brought up monstrous battering-rams, crow-feet, balista, and all kinds of dreadful engines for the demolishing of the walls, setting fire to the houses, and otherwise distressing the inhabitants. A thousand men were dispatched to cut down a neighbouring forest, out of which they began to build immense wooden towers, from which they could sling masses of rock into the city. There was a deafening noise all day and all night without the walls, of deadly preparation. The distress of the besieged was now intolerable and a truce was eagerly desired. A deputation, therefore, of the most honourable citizens, headed by the most eloquent orators, and preceded by a herald bearing a white flag, went to the camp of the enemy. The orators addressed them in their most powerful, and, as they thought, most soul-touching words; they craved only a truce for seven days; but their words fell like snow-flakes upon a rock, they moved no heart to pity, and the crators were returned to their city with many marks of ignominy. 'Go back,' said they, 'and our maswer shall reach the city before you do.' Accordingly, every machine was put in motion; arrows, burled by the balistæ, fell into the streets like boil, and ponderous stones, falling upon the buildings, threatened the thestruction of all. The rest of that day,

the inhabitants all kept within their houses, for there was no security in the streets, nor, it must be confessed, much within doors. The next day, when the enemy a little relaxed their cfforts, the people ventured out --but nothing was heard save lamentations and murmurs. 'We have no bread,' said the people; 'we are dying of thirst; the little corn that remains, and the few skeleton cattle, are reserved for the soldiers, while we are perishing in the streets! We will open the gates to the enemy, rather than see our children die thus before our eyes!' Upon this, the orators again came forth. It was no use mounting the rostrum, the people were sullen, and would not assemble to hear them; they therefore came into the streets, and poured forth their patriotic harangues to the murmuring thousands that stood doggedly together. 'Will ye,' they exclaimed, 'give up the city of your fathers' glory to their bitterest enemies? Speak !- will ye, can ye do it?' And the people held up their pale and famishing children, saying, These are our answers—these shall speak for us !' Just at this moment, the poor man, filled with compassion for his townspeople, and suffering, as well as they, stepped forward. 'Fellow townsmen,' said he, 'listen! There is no need for us and our children to die of hunger; -there is no need for us to deliver up the city. Only do as I say, and we shall have plenty of provision, and may drive our enemics to the four winds.' What would you have us do?'-said the people. 'Why,' said he, for every engine that the enemy bring out, I will bring out one also. We can defy their battering-rams--we can disable their crow-feet-we can sink a shaft to the river, and have water in plenty! Give me also but seven days, three brave men, and the means I shall ask, and I will pass through the enemy's fleet, visit the cities which are friendly to us, and return with provision to stand out the siege yet ten months longer!

"'Try him! try him!' said they; 'we

cannot be worse than we are !'

"Accordingly, all fell to work at his bidding; -every smith's shop rung with the sound of hammers;—carpenters worked all day and all night, constructing machines which were enigmas to them. There was such a hum of business for two whole days, that the enemy could not imagine what was going forward. Presently, all was ready; -a huge machine, the height of the walls, was raised, furnished with a tremendous pair of iron shears; and no sooner had the enormous crow-foot of the enemy reared itself to pull down a part of the wall, than the shears, catching hold of it, snapped it in two! What a roar of applause there was in the city! and this first successful effort assured them all. The poor man at once obtained the confidence of the city; -all their deadly machines he counteracted; their immense

inflammable matter, which he flung in at night; these, exploding suddenly, with horrible cracking and hissing, terrified the enemy almost out of their senses, and, bursting up into volcano-like fires, threatened to consume not only the tower, but the very camp itself. Whilst this was doing, the poor man and his three colleagues passed through the fleet in the twilight, in a small vessel constructed for the purpose, which, floating on the surface of the water, looked only like a buoy toosened from its hold. No sooner were they outside the fleet, than, cutting away one of the enemy's large boats that lay moored on the shore, and hoisting full sail, by the help of a favourable wind and good rowing they arrived, by the end of the next day, at a friendly city. Here they soon obtained supplies-con, salted meat, freshkilled cattle, and every thing of which they stood in need. A large vessel was immediately stored and properly manned; her hull was blackened, so were her masts and sails, and, being a good sailer, she reached the outside of the harbour by the next evening. Here they waited till it was quite dark. Every oar was muffled, and silently as the fall of night, yet swiftly as a bird, they passed through the midst of the fleet, and by the morning they had moored the vessel upon the quay of the city. What a triumph this was ! Men, women, and children, thronged down in thousands !- food was abundant :- they ate and were satisfied. But the extent of the poor man's service was not known when they merely satisfied their hunger ; -he had engaged the friendly city to send yet further supplies, with a fleet, which should not only attack the enemy's ships, but land a body of soldiers to fall suddenly upon the camp in the rear, while the soldiers of the city made a sally on the front. Accordingly, the next day, the sea outside the harbour was covered with vessels. The enemy was in great consternation; all fell out as the poor man had foreseen. After very little fighting, the enemy had permission to retire, leaving as hostages three of their principal men, till an amount of treasure was sent in, which quite made up the losses of the siege.

"As you may be sure, nobody after this thought they could honour the poor man sufficiently;—his deeds were written in the annals of the city, and ever after he was universally called, 'The Saviour of his Country!'

"Well," said William, "what do you think of my story? You see, the poor man, by his science and skill, could do more for his city than either orators or soldiers."

"Upon my word," said both his brothers, in the same breath, "there's something in it!"

ed them all. The poor man at once obtained the confidence of the city;—all their deadly home, in which a toiling .nxious father and machines he counteracted; their immense husband synagles to support a wife and wooden tower he set fire to, by balls of growing f grown-up-daughters, in the lady-

like habits of doing nothing, or worse than nothing, if we could persuade them that doing, or assisting to do, their household work is no derogation from their dignity, but the preservation of it, since, by so doing, they render themselves in a great degree independent of those on whom, in the present state of their education, little dependence can be placed; they would increase the measure of their comforts, relieve themselves of many annoyances to which genteel poverty must submit, and which economy, and industry, and activity escape. Let these remember that the father and husband who goes to his daily toils is also travelling to his grave; and when, at last, he lies down to take his everlasting rest, how pleasant to their spirits will it be to think that they lightened the load he had to bear in life instead of increasing the burthen.

## BOSTON, Nov. 2. ROYAL TAR STEAMER.

Further Particulars.- In addition to the details we gave yesterday, of the loss of the steamer Royal Tar, the Post relates the following incidents :

The Royal Tar had been four days out, having experienced contrary winds. The thief engineer had been up all night, and was in his berth, and the engine was under the direction of N. Marshal, the second engineer, who, at the time of the disaster, had entrusted the care to a fire-man, who was acting as his assistant. The son of the pilot discovered that the lowest cock refused to yield water, which indicated a deficiency. The lad told his father, who notified Marshal, but the latter disregarded the information, and gave both pilot and boy to understand that he knew his own business best. In a few minutes the empty boiler became red hot, and ignited a couple of wedges placed on it to aid in supporting the clephant, The moment Capt. Reed looked down the grating, he perceived that the utter destruction of the steamer was inevitable, and gave orders to slip the anchor, hoist distress signals, and let down the boats. He took charge of the first, and lay along side a few minutes, and then took on board as many passengers as she could carry. Sixteen others jumped in pell mell into the long boat, hanging to the cranks, and cut the ropes and let them go.' At this moment the Eastern Revenue Cutter rounded Fox Island. The hands on board of Capt. Reed's small boat, when the cutter was first descried, refused to pull for her, as it was against the wind. He, however, peremptorily commanded their obedience, exclaining--" I was captain of the big boat, and am determined to be captain of the small one; and if any man refuses to run for the cutter I'll throw him overboard." with a fair wind, but dared not approach went into a barn yard, and much frightened

very near as she had powder on board The Captain of the cutter was not on board, and for a time Capt. Reed serzed her helm. Capt Reed then returned to the steamer in his boat and took unother freight. The pilot of the cutter was despatched with her gig, but though he passed under her stern, within 30 feet, and saw the perishing creatures hanging to the ropes, and calling upon him to come near enough to take them off, he was so much terrified that be returned without a single soul. We have conversed with Mr. Fuller, who was thus situated. Some clung to the ropes thrown over the stern, two hours. Mr. H. II. Tuller's strength failing him, he took a turn of the rope round his neck, and it was necessary to cut the rope to clear him from the burning wreck. No less then four persons tastened upon Mr. Fuller, who reheved the pressure on his neck, by getting a twist of the rope around one of his legs, and a female made fast to his other leg. He is attached to Macomber, Welsh & Co's establishment.

We learn from other sources that the amount of specie and notes lost, is estimated at 60,000 dollars. The persons lost, were all drowned but one, an aged Irish woman, who was burnt to death. The total lossboat, baggage, specie, &c. is estimated at 120,000 dollars. This is the second time that the British Consul at Portland, Mr. Sherwood, has been burnt out of a steamboat near the same place, having been on board the Steam brig New York which was burnt thirteen or fourteen years since on her passage from Eastport to Portland. Capt. Waite of Portland, held on to a rope until it burnt off. He then swam to the rudder, got his arm into the chain, and for an hour and a half, thus sustained lumself and a lady and gentleman-holding the former by her hand, while the latter held on to his leg. Capt. Reed in his letter to the Agent of the Company says, "I have no blame to attach to any body as regards the fire. Had our fire engine been on deck, we could have put the fire out casily, It is a great oversight having a fire engine to work below.'

The animals on board were an elephant, six horses, two lionesses, one leopard, one Bengal tiger, one ghnu, a pair of pelicans. and a number of other creatures belonging to the caravan, besides Burgess's collection of serpents and birds, Dexter's Locomotive Museum, with its six horses and valuable cortents, and all the musical instruments belonging to the band. The unfortunate caravan men were paid off at St. John, and were bringing home the proceeds of their summer's expedition in specie, all of which

they lost, and are left pennyless.

There is a report that the elephant and poney belonging to the Menagerie on board The schooner soon perceived the condition the Royal Tar, swam ashore at Birce's of the steamer, and bore down towards her | Island, near Fox Islands—that the elephant

the catcle there, and that the farmer, learning the cause of the disturbance, repaired to the spot, and adorded the ships ricked visiter an asylum in his barn .- L'ertland Age.

Ennergy Ss.—Mesers, & Smah, and J. Holires, Lye been regard for the County of Lecton. Mir. Alex L Archibald, for the Towrship of Truto

ICP 2d. each will be given at this Office for cither of the following numbers of the 1st vol. of the Mirror-1, 3, 4, 12, 50.

MARRIED,

On Sanday morning last, by the Rev. Mr. Uninches Mr. John Renton, to Ann, eldest daughter of Mr. James Phi lips, of Plymouth, Eng. On Morday evening, by the Rev. Win. Jackson, Mr. Alex. Wilson, to Miss Margaret Miller.

DIED, On Thursday, 10th last, after a lingering Illass, in the 80th year of his 200, Mr. Joseph Jewett On Friday morning, after a lingering i lness, Mr. James M. Goddard, in the 89th year of his age.

On Friday afternoon, Jane, wife of Mr. Philip

Hushman, in the 44th year of her age.

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November 4. J. MUNRO.

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#### THE ORGANS OF THE SENSES.

The organ of the sense of sight, The little tender eye, Issuited well to bear the light That streams along the sky.

The organ, curiously design'd, By which it is we hear, Which catches modulated wind. Is simply call'd the ear.

The organ of the sense of smell Resides within the nose; To which, unfelt, invisible, The spreading odour flows.

The organs of the sense of taste, Which relishes excite, Are in the tongue and palate placed, To judge if food is right.

Theorgans of the sense of touch, The fingers chiefly are; But every where the nerves are such, We feel the slightest scar.

## SENSATION.

## HEARING.

The undulations of the atmosphere, excited by the vibrations of sonorous bodies, are collected in the external ear and auditory passage, as in a hearing trumpet, and are conveyed to the membrana tympani, which they cause to vibrate. The effect is transmitted through the small bones to the watery fluid that fills the internal ear, in which the delicate filaments of the auditory nerves float; and by this nerve the sensation is conveyed to the brain. Muscles attached to the small bones of the tympanum have the power of stretching or relaxing the membrane; and probably thereby adapt the organ to various quantities of sound, by diminishing acute, and augmenting the force of grave sounds, as the changes in the pupil of the eye accommodate that organ to a greater or less number of rays, according to the effect they produce,

An entire state of the membrana tympani is not essential to hearing; for the sense remains, where an opening has taken place in that part; yet it is necessary that the tympanum should communicate with the fauces, for an obstruction of the custachian

tube causes deafness.

Vibrations may be transmitted to the auditory nerves through the bones of the head; thus a watch placed between the teeth is heard very distinctly, although the ears are stopped, &c.

TOUCHING.

This has been with some propriety deaccommodated to certain properties of bodies. 'Every thing that is not light, sound, odour, or savour, is appreciated by the touch.' This sense resides throughout the whole extent of the nervous system; the peculiar organ, however, of touch, or that by which we come to a knowledge of the qualities of objects, is the cutis, spread over the external surface of the body. In some parts this sense is peculiarly modified; in the skin, for example, covering the apices of the fingers; and in such parts we meet with something resembling the papilla on the tongue, but, perhaps, not exactly similar, as they are rather constituted of nervous projections, than of glundular crypta; they are surrounded by an extremely fine vascular membrane. When the sense of feeling is exercised, these papille are supposed to swell and elevate the epidermis, which in itself is totally insensible to all such stimuli as act exclusively on living fibre. The epidermis, like the nails and hair, which last proceed from it, is a mere defence of the body, unorganized, and consequently destitute of excitability.

#### SMELLING.

THE cavity of the nose is divided into two parts, called the nostrils, by a partition, of which the upper part is bony, and the lower cartilaginous. The upper part of the cavity is covered with a thick glandulous membrane, above which the olfactory nerve is finely branched out and spread over the membrane of the spongy bones of the nose, and other sinuous cavities of the nostrils.

The odorous effluvia of bodies are disseminated in the atmosphere. The latter fluid passes through the nose in respiration and thereby brings the odorous particles into contact with the olfactory nerves, which convey the impressions of odours to the brain. It is in the first pair of nerves only that the sense of smelling is supposed to reside while the numerous twigs of the fifth pair that are distributed in the nose are merely for the purpose of general sensibili-Hence we see two very distinct modes of sensibility in this part, one of which may be entirely obliterated, while the other is augmented; in violent coryza the ordinary feeling is very acute, for the pituitary membrane is painful; but the person at the same timelis not conscious of the strongest odours.

As air is the vehicle of odours, its passage through the nose, in ordinary respiration, is sufficient for the purpose of smelling: but when any ocour is particularly agreeable, we make short and repeated inspirations, and at the same time shut the mouth, that the air which enters the lungs may pass entirely through the nose. On the contrary, we breathe by the mouth, or entirely suppress respiration, when odours are disagreeable to us.

TASTE.

Every sense has been said to be strictly a nominated the elementury sense, and all modification of feeling; that of taste, howevothers considered as merely modifications, ler, approaches nearer than any one of the senses, even in its organization, to that of simple or proper feeling; the surface of the tongue, which is the principal residence of this perceptibility, only varying from the common integuments in being thinner, more vascular, and having crypta, or follicles, which secrete the muchs of the tongue.-These are situated in greatest numbers near its tip, and are crected 'when we masticate high-flavoured food, or have a strong desire for any savoury dish. 'It is observed that the sense of taste in different animals is more perfect in proportion as the nerves of the tongue are larger, the skin finer and more moist, its texture flexible, surface extensive. motions more casq and varied .- The sense of taste in man would, perhaps, be more delicate than that of any other animal, if he were not to blunt its sensibility early in life by strong drinks, spicy ragouts, and all the refinentents of luxury that are daily invented.

> The lingual branch of the fifth pair is considered as the true gustatory nerve, while those sent to the tongue by the eighth and ninth are regarded as merely nerves of motion. Although the tongue appears to be a single organ, it consists of two sym.netrical halves: and should be considered as a distinct right and left organ closely applied to cuch other. This is shown in hemiplegia, where one-half only is paralysed.—First

Lines of Science.

SEBING.

The organ of sight is the eye; its construction is so beautiful, and its mechanism so admirably adapted to the office it has to perform, that it is of itself sufficient to indicate the hand of an all powerful and all wise being. The general form of the eye is neurly globular, it consists chiefly of three coats, and three humours. Of the coats the first or outer is called sclerotica; it is every where white and opaque, and is joined to another, which, from its great transparency, is called the cornea. next coat within this is that called the choroides, from its being furnished with numerous vessels. It serves as a sort of lining to the others, and is joined with that part of the eye called the iris. The iris is an opaque membrane, like the choroides; but in different eyes it is of different colours. It consists of two sets of muscular fibres, the one of a circular form, which contracts the opening in the middle, called the pupil, when the light happens to be too strong for the eye: the other serves to dilate it when the light is too weak, and thus to admit it in greater quantity. The third coat is called the retina, and is nothing more than an optic nerve finely expanded. On this the images of objects are painted, and by this the impressions which they make are conveyed to the brain. 🔏