

Corna left spear, and shield, and fled ;
Each lubra seized a son,
The father took two girls and sped,
Whither their guide did run.

The sea was very far away ;
Although they quickly fly,
Faster the flames pursued, and they
Thought only but to die.

The old wife, faint and weary grown,
Fell down, a tree beneath,
And yielding up a heavy groan,
She ceased, thenceforth, to breathe.

Whither shall Corna fly—for weak,
His lubras slowly crawl,
What place of refuge shall he seek
Against that fiery wall ?

The smoke, the old wife's form concealed,
The fire came swiftly on,
The fumes did reach the brain, he reeled,
And Corna's sense was gone.

A form rose from the kindled grass,
Where the old wife had died,
And, through the burning woods, did pass,
Till Corna she espied.

She stamped upon the ground, a flood
Burst from the heated soil,
Which, round about the blazing wood,
Began to hiss and boil.

The water rose, the earth did cool,
The old wife, in her hand,
Took up a little from the pool,
And sprinkled on the band.

Corna, my son ! arise, and live,
These waters, far and wide,
To thee, and to thy sons I give,
To dwell, their banks beside.

Toolcoon shall ne'er pursue, or burn
Thee, or thy children more,
This river, back, its flames, shall turn,
E'er they approach thy shore.

Here is a tiny, barken, boat,
Thou, with a spear, may'st guide ;
Fear not, but it will safely float,
And launch it on the tide.

Do thou, the downward stream pursue,
Until thou well canst hear
The roar of ocean, or thy view
Of its blue waves be clear.

That is thy land, this river there,
Will spread abroad its waves ;
Thine and thy children's home, where'er
Its seaward current laves.

There make thy paths, and every child
Will follow in thy track,
But shun the inland scrubby wild,
That teems with shadows black.

The fish, that sports with shining scale,
 And all the beasts that drink,
 And birds, that gaily fly and sail
 About the reedy brink.

These are enough for thee to eat,
 So climb not in the tree,*
 That may deceive thy careful feet,
 Or bruise thy active knee.

Give thou unto this stream my name
 Parnka, Ooroondool's† own,
 And, when a man disputes thy claim,
 Shew him this charmed stone.‡

His sight will fail, and dark as night,
 His blighted orbs will roll,
 Until he owns my Corna's right,
 And Parnka's high control.

Corna sailed down the rapid stream,
 For many, many miles,
 At length he saw wide waters gleam,
 And cliffs that loomed like isles.

The current swiftly swept across;
 His bark upon the lake,
 Did roughly on the billows toss,
 And every fibre shake.

Till, as he drew the heights between,
 That form the western head,
 From whence the sandy hills are seen,
 That rise from ocean's bed.

He heard the roar upon the beach,
 He saw the breakers' haze,
 He turned his bark, in haste, to reach
 A hill, to mount and gaze.

'Neath Taipang's§ crag, the weary man
 Brought in his light canoe,
 Himself and lubras cramped and wan,
 Their legs they hardly knew.

Corna sat down beside his fire,
 And here, upon this rock,
 Was the first wurl of our sire,
 The cradle of our stock!

* The Lower Murray tribe do not climb trees or hunt for opossums, or cockatoos.

† Ooroondool, the principal deity of these tribes, the creator of the world, and the instructor of mankind in the arts of life.

‡ The sorcerers amongst the native tribes pretend to have a stone that they find in the waters of the Murray, and to which they attribute the property of producing blindness: it is kept very carefully wrapt up in a rat skin.

§ Taipang, the western point of the lake, opposite Churcherriwa, known, I believe, as Cape Sturt. If so, it is a singular coincidence that the natives should point this out as the first location of their ancestors, as it was the first point from whence that great Australian discoverer (Capt. Sturt) obtained his first view of the mouth of the Murray, and of the western sea.

VEGETABLE PHYSIOLOGY—No. III.

ORGANS OF DIGESTION.

THE process of incubation in birds and germination in plants are strictly analogous: in both, warmth, moisture, and seclusion from light, is required; and in both, likewise, the first nourishment of the individual is derived from the store already provided for it by nature.

Thus, if a bud is plunged into the soil under favorable circumstances—that is, if it is subjected, while secluded from the light, to the action of warmth and moisture, the farinaceous matter contained within its integuments ferments and becomes converted into a saccharine milky substance, and the little germ or bud, which is attached to one portion, or other of every seed, becomes quickened into life. In the first instance, it pushes out roots into the substance of the seed, shortly after which we see it elongating at both extremities, the one becoming clothed with leaves and pushing upwards to form a stem, the other forcing its way into the soil to elaborate the future sustenance of the plant.

Perhaps there is nothing more remarkable in natural history than the pertinacity with which roots avoid the light, and the inveterate determination they evince to arrive at the sources of nourishment best suited to the plants to which they are attached. Thus the roots of an air plant brought up in a moist hot house all tend towards the back wall, to avoid the light; and a growing plant bound to the periphery of a wheel kept continually in motion, directs all its roots to the centre or nave of the wheel. Du Hamel planted some kidney beans in a cylinder which was partially revolved daily, so that a complete circuit was performed every four days: it was found that the roots were invariably directed to the dark side of the cylinder. That roots are not directed by the attraction of gravitation is evident; for if manure is laid on the surface, the fibres of the roots will ascend to reach it. In the early part of the damp season, roots ascend to the surface; in the dry season, they descend in search of moisture. Du Hamel found that a row of elms robbed a neighbouring field of its nutritious properties, and dug a deep ditch to cut off the communication between them. The roots dipped down under the ditch, and in this manner extended to their former situation. The radicle of the misletoe avoids the light with so much pertinacity, that it is impossible to induce it to take a direction towards it. Thus, if a seed of misletoe is made to vegetate on a thread, the radicle turns itself in all sorts of ways to avoid the light. To prove that mere attraction had nothing to do with the question, Dutrochet made a seed of misletoegerm inate on a thread; he then placed it upon the point of a fine needle fixed like that of a compass, balancing it by a bit of wax at the other end of the needle, he next placed a bit of wood at about half a line distance from the radicle, and then covered the whole apparatus with a glass, placed under such conditions that it was impossible that any cause could move the needle. In five days, the embryo began to bud and direct its

radicle towards the bit of wood, without the needle moving its position, although it was extremely moveable upon its centre. In two days more, the radicle was directed perpendicularly to the bit of wood with which it had come in contact, and still the needle had not moved. This proves, says Detrochet, that the direction of the radicle is not the result of the attraction on the part of the body towards which it is directed, but is the result of a spontaneous movement of the embryo; and after a long course of reasoning, he again says, there can be no doubt that the movement was spontaneous—that is to say, that it was caused by an internal vital cause put in action by an exterior agent; and he goes on to say, that this spontaneous direction of the radicle proves incontestibly that its nervous powers were alone influenced, and not its ponderable matter: the same is undoubtedly the case with terrestrial plants; and Lindley, when speaking on this subject, says, “there is abundant evidence to confirm incontestibly this important conclusion, that the visible movement of vegetables are all spontaneous.”

Roots spread themselves beneath the surface of the earth, prying into every nook and corner where food is likely to be found; their extremities are occupied by small spongy bodies; these delicate organs are beautifully organised, and well fitted to take up the gaseous and aqueous elements necessary to the plant, their syphon-like form, beset with hair-like appendices, being miniature representations of the traps of the fly-catcher (*Drosera*) of this country, already spoken of, and their structure being strictly analogous to the digestive apparatus of the mollusca. They enter into every cavity and interstice of the soil in search of food, which they convey into the body of the root; and it is observable, that they are more or less numerous according as the plant is more or less vigorous. The hair-like appearance they have in water I have already mentioned; some of them, as the urticaria, have bladders attached to their extremities, to enable them to float in water. The roots of many herbaceous plants which grow on sandy soils, swell out and become fleshy, affording a store of nutriment against the dry season, while some, as *phleum pratense*, and the bull-rush of the Reed Beds, form these fleshy roots or magazines on the approach of the dry season only, their roots consisting of fibres alone as long as the damp season continues.

The roots of some plants keep at a very regular distance from the surface, however irregular this may be, even from one side of a ditch to the other, without varying in distance from the air.

Roots do not merely absorb such soluble particles as they come in contact with, but there is no doubt their spongioles exercise the power of decomposing and digesting them, and of rejecting such portions as are incapable of being assimilated. This has been ascertained by Brugmans, who found that the pansy exuded an acid fluid from its spongioles; and by others, who found that various euphorbaceous and cichoraceous plants form little knobs of fecal matter at the extremities of their roots. Macaire found that *chondrilla muralis* secreted a matter analogous to opium; leguminous plants a substance similar to gum, with a little carbonate of lime; grasses a minute quantity of alkaline

and earthy muriates and carbonates, with a little gum; poppies a matter analogous to opium; and euphorbias a whitish yellow gum, and an acid resinous matter. He also found that plants have, to a certain extent, the power of expelling from the system by means of the roots, any deleterious matter which may have been taken into the circulation. Lindley says it is difficult to speculate on the results to which this curious discovery may lead. It is, he says, in all probability, an explanation of the necessity for the rotation of crops; of the action of what are called weeds; of the utility of changing the earth of plants growing in pots; and of other phenomena which could not previously be accounted for. However, this subject has been taken up by Dr. Daubeny, at the instance of the British Association, and there is no doubt he will be able in a short period to throw some additional light upon the subject.

FOOD OF PLANTS.

The food of plants is derived from the soil, and is introduced into the system through the roots.

It consists principally of carbonic acid and water, in addition to which, small portions of silex, lime, several other alkaline substances, and oxides of iron and copper may be enumerated.

These latter substances, however, Lindley says, although they undoubtedly each perform their allotted part in the economy of vegetation, consolidating the tissue, hardening the cuticle, or assisting in depriving a plant of organs which become unhealthy and worn out, cannot be altogether considered as nutritive matter.

Soil in its natural state is filled with the remains of organic bodies, which decompose and become converted into carbonic acid, and in proportion to the abundance of these is soil fertile.

Thus, soil becomes impoverished by the growth of plants, and is ultimately rendered incapable of supporting healthy vegetation, unless aided by manures: these consist of alkaline, earthy or saline ingredients; and quick-growing vegetables require a constant supply of these substances.

Manures are of vegetable, animal, or mineral origin. The first supplies carbonic acid, the principal support of vegetable life; the others are principally beneficial as stimulants, or as solvents of fibre—for the mere existence of vegetable matter in the soil is not sufficient to constitute it a manure, it must be reduced to a soluble state. This is effected, according to Sir H. Davy, by mixing it with such kinds of animal matter as undergo a quick putrefaction, and are themselves propitious to the growth of vegetables, as dung, rotten fish, or decaying parts of animals, or by the operation of alkaline bodies, such as quick lime, &c.

The black matter of the new alluvial soils in this colony is composed of carbonaceous matter combined with clay, which requires to be broken into small particles, and exposed to the action of the atmosphere for several months, or else mixed with quick lime, in the proportion of about eighty bushels to the acre, before it becomes sufficiently soluble for the purposes of vegetation: the lime unites with a portion of the carbonic acid evolved, and becomes converted into chalk.

Sandy soils—that is to say, sandy loams—are in this climate especially

much more productive than clay soils, in consequence of their admitting the atmosphere freely between their particles, while, at the same time, they retain moisture by capillary attraction. The roots of plants can likewise traverse in all directions with greater freedom. Maize and melons can be grown in sandy land only in dry seasons. The experiments published by some French chemists a short time since, who professed to have procured good crops of corn from seed sown on glass, and covered with straw, were founded on the fact, that in a damp atmosphere the under surface of the straw becomes decomposed, and converted into carbonic acid, which is said to be generated in sufficient quantity for the sustenance of the plants.

The new manure recently urged upon the attention of the British public is said to consist of powdered vegetable matter, combined with bituminous and other substances, in such manner, that a slow decomposition of the several ingredients takes place, and carbonic acid and ammonia are gradually evolved, the latter acting as a healthy stimulus to the plants, the former as an essential nutriment.

The ingredients, according to Mr. Hall, consist of, 1st.—Wood of every description reduced to powder by mechanical means: this forms the basis of the manure. 2nd.—Bituminous matter of every kind rendered soluble by caustic alkalis, such as barilla and quicklime, and applied in various ways to saturate thoroughly the powdered wood: to this is added sulphur, to a small extent. These, Mr. Hall says, “are the substances which have been compounded for the furtherance of those results which have attracted and been entitled to so large a portion of public attention.”

After all, perhaps, yeast is one of the most active manures we have, in consequence of its possessing the power beyond all other substances of exciting fermentation, and thus of causing the formation of carbonic acid among the vegetable matter which lies buried in the soil.

Nitrogen is likewise an essential ingredient in the food of some plants; it is constantly found in the tissue of mushrooms, and cruciferous plants, in starch and vegetable albumen.

Corn, which requires silicious matter to strengthen its stem, must likewise find in the soil sufficient alkali to dissolve it.

All that we know at present of this subject is, that plants collect and digest the substances already mentioned, and perhaps some others, while such as are unfitted for the purpose of nutrition, are ejected in the form of excrement. As yet the researches of philosophers have thrown but little light upon this subject, and chemistry has hardly advanced the art of agriculture a single step, but, on the contrary, it is still a mere empirical art.

One thing, however, we have ascertained, that plants are gluttons; and if they are supplied too freely with carbonic acid, they gorge themselves, become plethoric, and die of apoplexy, or are cut off by the slightest change of circumstances. This is all we are at present certain of; but the writer of this paper is pursuing a course of investigation which will, he hopes, lead to a more perfect knowledge of this most interesting and important branch of vegetable physiology.

DELTA.

HUNTING IN SOUTH AUSTRALIA.

No people in the world enter into the spirit of hunting with so much ardour as Englishmen: to them, the "pleasures of the chase" exceed all other enjoyments. How many happy faces and joyous hearts meet at the cover side; and what can create so much excitement as the view halloo, or what music so thrilling as the full notes of the hounds, when opening with a crash at the burst, and what sight so cheering as hounds and field getting away. Our great, great, great grandfathers, for centuries before us, followed hounds, and found, as we do at the present time, that hunting leads to health and good fellowship. Englishmen, with the full knowledge of its delights, have established this national sport in all parts of the world where they have formed a permanent residence: in the colonies of New South Wales and Van Diemen's Land, packs of hounds have been established on the old English system, and have throughout been kept up with that spirit the cause deserves; the native dog and kangaroo affording as good running as the fox and stag.

Almost every person, on leaving England, adds to his personal luggage a gun-case, complete—'twill be as well, in future, to make the addition of leathers, tops, and scarlet, a good Millroy, and—no, not Prince Albert's patent safety stirrups, but a good snaffle bit, for he may make up his mind that, go to what colony he may, he will find a pack of hounds in full work. In South Australia, a pack has been established by subscription, and although it is as yet in its infancy, there is every prospect of the hunt thriving. At present, there are eleven and a-half couple of hunting hounds, six couple and a-half of very promising puppies, as well as expectations of others; and, in spite of bad times—the want of that vile gold which vulgar prejudice has made so necessary—in spite of debts and taxes, the hounds have been out generally once, and sometimes twice a-week; they have had some brilliant runs, and if it please the goddess of the chase, will have some more before the end of September, when the season closes.

The method of hunting in South Australia differs in a slight degree from that pursued in England, from the difference existing between a thickly populated country, and one in nearly the opposite extreme. The kangaroos and native dogs have no particular covers, but inhabit a country side; it is consequently necessary to quarter the ground with hounds almost as closely as would be done with pointers, and this requires good hunting hounds, fine noses, deep mouths, and plenty of dash in them; they ought to hunt with a wide front, hark quickly to any hound opening, and be very obedient to the huntsman's voice; all mute hounds and babblers are worse than useless: for killing, they require good courage, for the native dog, unlike the fox, has a very tough skin, and dies hard, and the kangaroo, when easily run into, defends itself with its hind feet, and is quite as ugly a customer as a deer with his antlers. No particular rules can be given as to the running of either native dog or kangaroo: perhaps the former takes (if he can) a straight line, with a side wind, but the latter rings like a hare, when found in its lying ground; but if found at pasture, takes direct for its lying ground, without reference to the direction of the wind.

It is difficult to give any directions with regard to making a cast when hounds are at fault. If a kangaroo is a-foot, it would perhaps be as well to try back; if a native dog, lift the hounds, but in all cases this must be left to the judgment of the person hunting the hounds; the country hunted over, the sort of scenting day, besides many other circumstances, make it impossible to lay down any rules on this point.

With reference to hounds feeding, kennelling, &c., the kennel should be large and airy, the yards paved with brick or stone, and kept perfectly clean; the food given regularly once a day, consisting of meat, boiled, and the soup mixed with pollard or oatmeal; and be it observed, every night before the hunting day, raw meat should be substituted for the regular mess. The hounds ought to be exercised every day, either out with the whip, or some person who knows them, or let out to run about for a few hours: these may appear home truths to many, but they are rules to adhere to; and if they effect a good change in any hounds, the writer's object will be accomplished.

Besides the subscription pack before mentioned, Messrs. Edmonds and Conway

possess some very good hounds, and it is to be hoped they will find sufficient encouragement to continue their exertions in increasing their number, more especially as the country affords plenty of game.

Mr. Horrocks, at the North, has a few half-bred hounds, which afford excellent sport to the neighbourhood.

All lovers of fox hunting may now rest satisfied that "The Hunt" is fully established in South Australia, and let us take leave of the subject, by wishing every success to its cause.

Remarks on riding, and some account of the runs with the Adelaide hounds, next month. JAGER.

ISRAEL IN CAPTIVITY.

Lo, where Euphrates, wild and wide,
Rolls o'er the plain his giant stream,
And laves great Babel's towers of pride,
That in the golden sun-light gleam :

There silent sits a captive band,
Mid woes that sleepless vigils keep ;
And sadly, in a stranger land,
They think of Zion—think and weep.

Their harps, that once were sweetly strung,
And many a melting cadence threw,
Neglected on the willows hung,
That there in silvery beauty grew.

Yet, sometimes would their griefs unbend,
And tones of brighter feeling flow,
As faith reviv'd, in smiles, to blend
Exulting hopes with tears of woe.

The winds, that swept in softness by,
To heaven their mingling accents bear,
When no intrusive foot is nigh,
No impious ear is listening there.

But when the foe, in mockery, cried,
Come, sing us Zion's choral song !
Oh, then of holy zeal the tide
Roll'd back its current, deep and strong.

Back to the towers of Zion's hill,
They felt the gush of love returning ;
They felt, for long-lost Judah still,
With fire from heaven their bosoms burning.

Of Zion sing, said they, shall we
In heathen lands and bondage ? Never !
Sooner these hands shall wither'd be,
These tongues in silence close for ever.

L. L.

New Town, near Hobart Town, July 14th, 1842.

HORACE, BOOK I, ODE IV.

TO THE SHIP WHICH CONVEYED VIRGIL.

Oh! may the fair inconstant Queen of Love
 Thy speedy course attend;
 May'st thou, great Eolus, propitious prove,
 And the twin stars that brightly shine above,
 Thee, precious ship, defend.

May the rude winds, engag'd in fierce debate,
 Their haughty rage control—
 A milder breeze thy swelling sails dilate;
 To thee entrusted is my Virgil's fate—
 Thou bearest half my soul.

Ah, sure! his heart was oak, and girt beside
 With triple iron chain,
 Who first committed to the ocean wide
 His fragile bark, the sport of wind and tide,
 Toss'd on the foaming main.

Undaunted, where the North with furious rage
 Assails the torrid South,
 The Adriatic tyrant to engage
 He rushes on, nor can the Heavens assuage
 The whirlwinds of his mouth:

And fearless where the scorching noontide ray
 Darts on his weary head;
 Where hateful Hyades their force display—
 Where Death himself is stationed in the way,
 He feels no anxious dread.

Who is it can behold with tranquil eye,
 Unmov'd, unus'd to weep,
 Cerarnia's rocks, whose bases hidden lie,
 With monsters huge, and still resolv'd to try
 The boundless vasty deep?

Mankind the very name of evil love,
 And every vice below:
 So bold Prometheus stole the fire above,
 And quickly made th' infected nations prove
 Death, which before was slow.

So Icarus with wings to man denied,
 Rash mortal, dar'd to fly;
 In vain to soar through empty air he tried—
 The Gods soon punish'd his presumptuous pride,
 And dash'd him from on high.

Thus Hercules a gloomy passage found
 To shades of deepest hell—
 Nor should we fear tho' Heaven itself resound,
 And Jove's dread lightnings hurl'd us to the ground,
 Blaspheming as we fell!

THE MONTHLY RECORD, SEPTEMBER, 1842.

DOMESTIC INTELLIGENCE. BIRTHS, MARRIAGES, DEATHS.

MECHANICS' INSTITUTE.—At a meeting of the members of the South Australian Literary and Scientific Association and Mechanics' Institute, held on Tuesday the 9th August, the following office-bearers for the present year were appointed:

Patron—His Excellency the Governor.

President—Hon. Charles Sturt.

Vice-Presidents—Hon. W. Smillie, W. Giles, Esq., Charles Mann, Esq., Thomas Wilson, Esq.

Committee.—Messrs. James Allen, B. M. DeCosta, A. H. Davis, J. Davies, —Davy, A. L. Elder, R. Frew, J. Goodier, J. Hagen, A. Forster, H. Johnston, —Jones (builder), H. Jickling, B. A. Kent, A. Macdougall, T. Moulden, J. Nowland, J. Oldham, William Pearce, W. Peacock, Richard Penny, Jacob Pitman, C. S. Platts, G. Young.
Honorary Secretary—Mr. T. Y. Cotter.
Assistant Secretary—Mr. C. A. Wilson.

Council for statistical purposes, &c.—Hon. Capt. Frome, Hon. Capt. Sturt, Hon. W. Smillie, Hon. J. A. Jackson, Dr. Kent, Messrs. Jickling, Cotter, Allen, A. H. Davis, T. Gilbert, J. Hagen, G. Kingston, T. Wilson, W. Wyatt.
COURSE OF LECTURES.

1842.

Sept. 6—Chemistry, Dr. Kent.

20—Ditto, ditto.

Oct. 3—Genius of Shakspeare, Lazar.

17—Engraving, T. Wilson, V.P.

31—Colonization, C. Mann, V.P.

Nov. 14—Comparative Anatomy, Moorhouse.

28—Architecture, Benson.

Dec. 12—Colonization, C. Mann, V.P.

26—Music, Platts.

1843.

Jan. 8—Entomology, A. Wilson.

22—Comparative Anatomy, Moorhouse.

Feb. 5—Chemistry, Dr. Kent.

19—Colonization, Mann.

March 5—Elizabethian Poetry, Wilson.

T. Y. COTTER, Hon. Sec.

BIRTHS.

At Hindley-street, on the 10th July, the lady of John Knott, Esq., M.D., of a daughter.

At Hindmarsh, on the 15th July, Mrs. Daniel Cudmore, of a daughter.

At Rundle-street, Adelaide, on the 23rd July, Mrs. George Mackenzie, of a daughter.

At Gilbert-street, on the 8th August, Mrs. O. K. Richardson, of a daughter.

At Hindmarsh, on the 13th August, Mrs. Frederic Lester, of a son.

At North Adelaide, on the 27th Aug., the lady of Mr. J. W. DeHorne, of a son.

MARRIAGE.

At Trinity Church, on the 25th Aug., by the Rev. C. B. Howard, Mr. Robert Hall, of North Terrace, to Ruth, eldest daughter of Mr. Richard Smith, butcher, of Hindley-street.

DEATHS.

At Castle Hill farm, on the 18th January, Ann, wife of Mr. Prescott, and mother of Mr. William Prescott, of Adelaide, aged 75 years, deeply and deservedly lamented by all who knew her estimable qualities and intrinsic worth.—*Dover Chronicle*.

In latitude $1^{\circ} 4' N.$, longitude $105^{\circ} 16' E.$, Rosa, wife of Captain William Bauman, of the barque Guiana.

At Exwell, near Brown Hill Creek, on the 23rd July, after a short illness, Mr. Thomas Sleep, farmer, aged 25 years.

On the 15th August, after a lingering illness, Mr. David Crafer, formerly of Buxton, near Norwich, late of the Norfolk Arms, Old Tiers, and the South Australian Arms, Hindley-street.

At North Adelaide, on the 18th August, Maria Jane, daughter of H. Jones, Esq., aged 13 months.

Near Gleeville, on the 20th August, Mrs. Ferguson, late of Galdenoch Mill, New Luce, Wigtonshire.

*** Our usual political intelligence is postponed for want of room.

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FCW.