

the interior parts of the body present a natural appearance.

Those of our readers who remember the experiments made about five years ago at the University of Dublin, when bodies for dissection were rather scarce, will perceive that the composition proposed by M. GAN-  
NAL, is exactly similar to that used by Dr. MACARTNEY; the only difference of method is, that the latter merely injected the vessels of his subjects with the *conservative* fluid, and then wrapped the bodies up in cloths moistened with the solution. The superficial and deep nerves of an arm prepared in this manner which were dissected by a friend of the Editor, served the learned professor at his demonstrations during a period of several months.

#### ARRANGEMENTS OF MUSCLES.

At the French *Academy of Sciences*, on the 27th of July last, Dr. ALEXANDER THOMSON produced a memoir on the Structure and Arrangement of the Muscular system, in which the following principal results were deduced by the author. They are, as will be seen, completely contradictory of the views held by many anatomists of the two academies.

1st. None of the muscles of the abdomen, the perineum, the pharynx, or the bladder, terminate on the median line. Their fibres not only traverse this line, but, in traversing it, they also become interlaced with those of the opposite side, and form a perfect web.

2nd. There is no "aponeurosis" of the perineum, in the sense given to that word by MM. GERDY, BLANDIN, and VELPEAU, for the aponeurotic layers are composed by the interlacement of the tendinous fibres of the muscles of both sides.

3rd. The cremaster muscles are independent muscles, and not simply prolongations of the inferior fibres of the internal oblique.

4th. The round ligaments of the uterus are nothing but a transformation of the cremaster muscles.

5th. The tubernaculum testis is nothing but the cremaster muscle, accompanied by its proper nerves and vessels.

6th. The bladder has only one series of

fibres, disposed in spirals, which intersect one another before and behind, and these are attached by tendinous extremities to the articular edges of the symphysis pubis.

No. 27 of the *Annales d'Hygiene* contains original articles under the following titles:

1st. Medico-statistical History of the central Prison of Rennes, by Dr. TOULMECHE.

2nd. On the influence of Asphaltic Bitumen on the health of those who dwell in the neighbourhood of places in which it is prepared, by M. PARENT-DUCHATELET.

3rd. On the influence of Professions on the Duration of Life, by Dr. LOMBARD.

4th. Experiments proving the efficacy of the Hydrate of the Peroxide of Iron as an Antidote to Arsenic, by M. BOULEY, jun.

5th. Examination of the Doctrines which prevail at the present day in Germany on the question of Mental Alienation, by M. TAUFFLIER.

WE should analyze M. MARC's highly interesting paper in the 26th No. of the *Annales*, on the means of preventing the danger of being asphyxiated, but we reserve ourselves for the complete work, which he is about to produce on this subject.

#### ON THE EFFECTS OF THE ETHEREAL TINCTURE OF MALE FERN BUDS,

THE FRENCH HOLLY, IODINE, AND  
BEAR'S FOOT,

IN CASES OF

#### WORMS IN THE INTESTINES.

By JOHN FOSBROKE, M.D., *Physician to the Ross Infirmary.*

As the time has not yet gone over for gathering the buds of the male fern, I shall submit a few observations on that remedy, which I have introduced into practice here.

The more certain remedies generally used for worms are so disgusting, that many adults and children cannot get over the loathing of them. They dislike the tin, because it produces a belching of gas, like sulphuretted hydrogen; the cow-hage, because it "sticks in their throats, and all the way down;" and the turpentine, because its flavour is "quite hate-

ful," and its effect not an exhilarating, but a crying drunkenness.

These objections prompted me to look about for a more agreeable remedy than either of them, and of equal efficacy. Dr. Peschier, of Geneva, asserts that he has cured 150 cases of lumbrici, tricocephales, and teniæ, in nine months, with the *ETHEREAL TINCTURE OF MALE FERN BUDS* (*polypodium filix mas*), in doses varying from viij to xxx gtt., in as many pills as there are drops. His brother, an apothecary at Geneva, and the discoverer of this "tincture" or "oil," gives it in thirty to thirty-six-drop doses, in sirup or castor oil, or in pills, one half at night, and the other on the following morning; and, two hours after the morning dose, ʒij *Ol. Ricini*. This quantity is usually sufficient to expel the worms. I have given it on a lump of sugar, and no child has hitherto revolted against it. It has had three results; either it has killed or *burst* the worms, or it has urged them from the bowels alive, or it has had no effect at all. My worm cases as yet have been too few to develop its powers, and the preparation used was made of dried stalks and buds obtained from Covent-garden market, and not worth relying on. A herb-gatherer from the Forest of Dean brought me about a peck last month, the tops or buds of which have been snipped off, and, after drying by insolation, put into a quart of ether. This person, an intelligent sort of woman, informs me, that her grandmother, Sarah Boughton, in my father's parish of Ruardean, who died, aged seventy-five years, about twelve years ago, and was what the country venerate under the name of a "yarb-woman," was wont to gather the male fern buds, and let them wither, and then dry them in an oven and reduce them to powder, which she gave to children for worms. Her grand-daughter also bruises the stems (the redder the better), boils them to a thread in fresh liquor, and so makes an ointment, with which, she says, she scatters gathering breasts with great success. In this part of the country, fern is boiled and given as food to pigs.

Madame Noyau, or Noyer, raked up the powder of the root from the tombs of the ancients, and procured a reward for it from the French government as *her-specific*, forsooth! This woman, like a great many other people who pretend to have discovered what was very well known before, had the fame of having brought it into notice,—I apprehend, from the good luck of being about great people and the Court.

Nicholas Culpeper, who lived long before her (from 1616 to 1653), but was not

quite so conspicuously situated, anticipated her in all she knew of it in cases of teniæ, for he distinctly says, "It kills both *flat* and *round* worms." William Salmon (1684) says, "It kills *long flat* worms, drunk in mead with gr. x of scammony, and so it expels the dead child, and helps obstruction of the spleen." (*New London Dispensary*, 1676, pp. 56-7). In his splendid folio Herbal (1710) he directs ʒj of the powder of the male fern to be given with gr. xv of scammony in black hellebore. Whether old Gerard, who wrote in Elizabeth's reign, and whose placid discourse savours of "the sweet and pleasant flowers" which he describes, anticipates these qualities of the fern, I am not aware.

In these days of medical reform I cannot pass over two sturdy old reformers like Salmon and Culpeper, without digressing to give some notice of their characters. They were as much wonders of industry and usefulness, as they were conspicuous objects of collegiate obloquy and oppression. Salmon shares the credit with Bate and Fuller, in pharmacy, of adding lustre in his time to English medicine; while Grew, Lister, and the philosopher Ray, improved the science in botany and natural history. The younger Duncan has acknowledged the value of his labours in clearing the way in pharmacy and materia medica. The college legitimates waged with him a perpetual war; and dragged him, as well as I remember, through two or three orthodox prosecutions. As the case has ever been with that institution, the members distinguished themselves more at that period by the illiberal exclusion, and oftentimes the malevolent persecution, of men of superior powers, except only those whose particular position and eminence rendered their hostility formidable, and their admission politic and expedient, than by anything that they affected themselves, collectively or individually, for one branch of medical science or another. No names of contemporary English physicians of any worth have survived, saving Radcliffe, Friend, and Mead. The accomplished Garth, who has the merit of candour, said of them,

"But now no grand inquiries are descried,  
Mean faction reigns where knowledge should  
preside.

Fads are increas'd, learning is laid aside,  
The drooping sciences neglected pine,  
And Pæan's beams with fading lustre shine.  
The lonely edifice in sullen sweats complains  
That nothing there but sullen silence reigns.

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No learn'd debates molest their downy trance,  
Or discompose their pompous ignorance;  
But undisturb'd they loiter life away,  
So wither green, and blossom in decay."

At the same time that their dulnesses were the stigmatizers of Sydenham as a dan-

gerous innovator on established practice with much personal and illiberal invective, they were, numbers of them, the dupes of the crafty and audacious Valentine Greatrakes, the magnetizer,—a degree of folly of which they have furnished another instance within the last quarter of a century in the case of Perkins and his tractors; and which, in the instance of Perkins's predecessor, joined to their conduct towards Sydenham, brought peculiar shame on their country. Dr. Thomas Fuller, M.B., of Cambridge (1709), a spinner of some cobwebs on the fluids, was one of Salmon's enemies, and says of him that "he was an ordinary man, and of no university." If so, how much more was his merit to have accomplished, in therapeutics, what certainly a whole college failed to achieve! Garth, speaking sarcastically of one Birch, a popular apothecary, says,—

"Cowslips and poppies o'er his eyes he spread,  
And Salmon's works he laid beneath his head."

Salmon's books, indeed, are still sought by some practitioners and the public in the country. He was a practitioner, and a professor of "extraordinary cures," of no moderate popularity, in London, where he resided in Fleet-street, but had to endure the obloquy which attaches to irregularity. From the reign of the merry monarch to that of Anne, the country was full of medical quackery and imposture, notwithstanding the College, which has done little or nothing at any time to check it. Salmon, no doubt, adopted the particular system of the day; and one would think, from the long prayers and ejaculations which, like some of our modern saints, he set up for his patients and himself, and intermingled with his cases and prescriptions, that he had lived in a reign before the era when the rapine and hypocrisy of puritanical principles had been so far unfolded as almost to induce the people to feel a contempt for religion altogether. He endeavoured to work upon the superstitious as well as the religious prepossessions of patients, by mixing horoscopes with the prayers and prescriptions, and to inspire a feeling of reverence by surrounding himself with the mummies, tortoises, scaly alligators, sharks' heads, flying fish, musty drugs, dried bladders, and drawn teeth, painted in the verse of Pope's first patrons, and by all those hygone modes of imposing upon the immortal principle of delusion in the highest and lowest classes of society, which have given place to other methods of quackery and hypocrisy, different in form, but equally successful in practice.

Nicholas Culpeper "Gent., Student in Physic, and Astrologer," was certainly in-

ferior in science and learning to Salmon, but his "Herbal" is always to be found with "Robinson Crusoe" and "Pilgrim's Progress" in the houses of the vulgar, and of some of the higher sort of the people. Books like his and Salmon's, have this great fault, that they attribute a long list of indiscriminate virtues alike to powerful and inert plants, and confound their characteristic and peculiar qualities with such as they do not possess. From the popularity of his writings, some of his attacks upon the College have made a considerable impression even to this day. He was born in 1616, and became an undergraduate of Medicine, but left the University, from want of funds, without taking a degree. He was then apprenticed to an apothecary, and fought and was wounded in the battles of Cromwell in 1643. He died from the slow consequences of his wounds in 1653-4 in his 38th year. He practised in Red Lion-street, Spitalfields, at a house which, about 38 years ago, hung out the sign of the "Red Lion." He was conceited and full of jests; always poor, "being as free of his purse as his pen," and considered as an oracle in astrology. As is said of Hippocrates, Galen, and Avicenna, he looked on all pretenders to physic, who were ignorant of astrology, as homicides. He had to combat with colleges, physicians, and a host of opponents. Besides the "Astrological Judgment of Diseases" from Avinezer and Durret in 1650, the "English Physician" in 1652, and the "School of Physic," which were replete with the obsolete doctrines of astrology, he wrote 76 other books, for 17 of which he was paid by Cole, a bookseller. "Culpeper's Legacy" was a forgery, not written by Culpeper, but it *sold well notwithstanding*. In the "Mercurius Pragmaticus," a paper of the Royalist Party in 1649, his opponents politically and professionally give him a character, with a public caution, which for bitterness and scurrility the modern Tory newspapers could not well exceed,—if indeed they would venture to publish, in a man's lifetime, in the present day of the so-much-boasted liberty of the press,—a liberty nothing like so great in practice as it was during the last century up to the French war, when liberty in every sense went out and despotism walked in. "The London Dispensary," says the *Mercury*, "was done filthily into English by him, in which to supply his *drunkenness and leachery* with a 30s. reward, he endeavoured to bring into obloquy the famous solvatives of apothecaries and *chy-rurgiens*" and "gallimafréd the Apothecaries' book into nonsense." He took upon him also "to correct and abuse in the most grosse tearmes the whole college of

*learned physicians.*" He was bound apprentice to an apothecary at St. Helen's in Bishopsgate-street, but "ran away, contented with serving his own time, which was very short." He then "turned compositor and figure flinger (cunning man and planet ruler), and lived about Moorfields, merely upon cozenage and cheating the poor people who had lost their waistcoats, aprons, smocks, &c." He successively "turned Independent, Brownist, Anabaptist, Arminian, and Manifestarian, and, lastly, absolute Atheist." In this Culpeper went no doubt with the fashion of the day, and acted, as Sir Walter Scott says of these matters, in compliance with his private interests, for there were 180 "religions" preached around London, and as many in the kingdom as there were days in the year, to keep up a beautiful spirit of national good taste, harmony, and intelligence. "He appears in an old black cloake lined with plush, and looks as if he had been stewed in a tanpit, being a drowzie-headed coxcombe, not worth the name of a gentleman or scholler, and such a one as the people have cause to take heede of, in that he means to monopolize unto himselfe all the *knavery and cozenage that ever an apothecarie's shop is capable of, under the show of serving, though really undoing, his country.*" A pretty good sample this of what those who protect and thrive by the abuses of established institutions are capable of saying, and of the fate which reformers must always expect to receive at their hands!

To resume, after this digression. The female fern has the same properties as the male, but is weaker. I have not entered all my worm cases in the case-book; some, however, are preserved.

On March 29, 1834, the four children of Thomas Preece, of Brampton Abbots, were ordered to take eight pills twice a day, each pill consisting of a bitter extract, and containing gtt. j of the ethereal tincture of male fern buds. The worms came away dead and "burst" from all of the children, who then took a purge of salts and senna, and, on April 5th, another round of the fern-drop pills. On May 7th the mother told me they were free from all symptoms and appearances of worms, and they were directed to take a teaspoonful of common salt in water once a week to remove the disposition to them.

On the 24th March, 1825, Mary Nelms brought her two children to me for worms. I ordered them to take gtt. x of the ethereal tincture of fern buds three times a day on a lump of sugar, and a x gr. purge of scammony, gamboge, jalap, and calomel, every third morning. One of the children after taking the drops voided six

worms, one after another, alive; the other a still greater number.

On the 9th of March preceding, Joseph (æt. 2) and Mary Jackson (æt. 5), George Meredith (æt. 9), and Elizabeth (æt. 2½), took the same remedies, and passed quantities of thread-worms (*cucurbitina*) after taking the powders alive. I then ordered them to take muriatic acid.

Ann Mansell came to me on the 14th of April last, with three children,—Marianne (æt. 5), Esther (æt. 2½), Joseph (æt. six months): she had "seen worms full of young ones" come from the first two. I ordered them the preceding remedies, but they passed nothing except slimy mucus, which frequently exists without worms, and is attended with the same symptoms.

On the 7th of May, Charlotte Meredith brought her two children again; a boy æt. 4, and a sucking infant. The last had passed worms *while at the breast*. The fern-bud tincture was given till the 4th of June without effect, and I then ordered calomel to be taken at night, and scammony and jalap in the morning, which removed them. She thought she had given the tincture in a wrong manner, as it had fully succeeded with Jackson's children under the same roof. Both these families lived in a situation where they were constantly subject to worms.

It is not known, I believe, that iodine will kill worms. Thomas Greenaway, æt. 23, affected with phthisis and pyrosis, of which he ultimately died, inhaled Sir C. Scudamore's combination of iodine (a remedy from which no consumptive patient under my care has received the slightest benefit, but, if anything, rather, harm), upon which he passed white worms an inch long, with flat heads (*cucurbitina*?). I gave him,—℞ *Sp. Tereb. Rect.* ʒj; *Ol. Ricini* ʒss; *Liq. Opii Sed.* gtt. vj. M., ft. haustus. It brought away upwards and downwards the *debris* of at least fifty dead worms of three sorts, all of which appeared to have been killed from the time he inhaled the iodine. He lost a dreadful gnawing of the stomach, which had been ascribed to gastrodynia, and upon which the old writers laid so much stress as a characteristic symptom of worms in occult cases attended with convulsions.

The gipsies put a branch of French holly (variegated garden holly), with the leaves and thorn at the end, into an oven and dry the leaves, and then reduce them to powder, of which they give as much as will lie on a sixpence five or six times, and report it to be a sure vermifuge.

The foresters of Dean give the bear's foot (*helleborus fœtidus*) in a sufficient dose of the dried leaves to cover a sixpence. It was recommended by Schroder

and other old writers, and is mentioned by some moderns as "possessing extraordinary anthelmintic powers," but it is violent and dangerous, according to the former, to "gross bodies," and to all except "strong bodies." Gunpowder in gin (5j to 3j) is considered a popular and effective anthelmintic, in some counties, particularly, I believe, in Cornwall.

The extract of esula or sponge was the general worm-remedy of the old physicians, who ascribe great cures to it. The drastic purgatives are commonly used in the country by medical men, but are very uncertain; they serve to remove the mucus in which the worms exist, and expose them to the action of more direct anthelmintics.

What are the causes of invermination?

Herefordshire is quite a worm country, among the labouring classes, on the hilly parts in this neighbourhood, though they have places of their own, tenements and gardens, and some orcharding or arable, taken out of the waste, and are nothing like so ill fed, clothed, and employed, as their own order in many other counties; they are rather, generally, a relic of the almost extinct race of English peasantry. But there are very few of their children that are not possessed of worms, putting one in mind of Swift's lines:—

"Whatever we do, whatever we see,  
All mankind are worms."

The worms come alive at the same time, in many cases, from the mouths and ani of grown persons and children, which happens, according to Dr. Robert Dyer, among the blacks in the Mauritius. Professors and authors ascribe them to bad air, bad food, want of sun, vegetables covered with larvæ, and bad water containing the small germs of them (*Professor Elliotson*), and invisible ovula floating in the atmosphere, obtaining admission into the alimentary tubes of persons, chiefly children and sickly adults, whose animal fluids are in such a state as to form a proper medium for their growth and increase. (*Anon.*) Many persons, on going to particular parts, have suddenly been subject to worms, just like other people in that particular neighbourhood. Persons who have drunk bad water, have frequently from that time most decidedly had worms. In a particular family the whole, as well as the servants who came, had ascarides. They were discovered in a well, from which the people drew their water, and went away on the people ceasing to drink the water. (*Dublin Transactions*, Vol. II). Drs. Thompson and Rickets give the case of a young woman in Ireland, "who drank water from the graves of pious clergymen!" This idiot,

by way of a blessing upon holy-water drinking, threw up 700 larvæ of the common beetle and of diphtherous insects, and, in the course of a year and a half, 1300 more! The larvæ of cheese and game, called hoppers, and of the pantry fly and beetle, may be introduced and flourish in debilitated stomachs and bowels. (*Good.*) Preece's wife, whose children's cases I have mentioned, told me, that for want of any other water they were obliged to drink brook water, which, after a time, was covered with floating appearances, to which she attributed the generation of worms in her children. But if they were taken in with the water, how did it come to pass that she had a child *at the breast* so full of worms that they crawled alive out of the mouth and anus, as if the child was eaten up by them? The irritation and convulsions which ensued were fatal. How could this child, nourished with breast milk, or with pap made with boiled water, so derive them; or how does it happen, if water be the chief cause, that worms are quite as common where the water certainly is not blame-worthy? If children at the breast have worms, the saying of John Wesley, who collected into his "Primitive Physic" all the old women's sayings and "*desper't good receipts*" in the country, that "worms are never found in children that live wholly on milk," is not true. Bad diet, the eating of trashy fruit and vegetables, the lying about of filth and decayed animal and vegetable matter covered with larvæ, faulty nutrition, vitiated secretions of the mucous membrane of the stomach and intestines, and peculiar states of health, in which, nevertheless, ruddy cheeks and animal vigour may not be wanting, certainly predispose to worms; but still the question, "Whence come they, and how do they get there?" is not solved.

Ross, Herefordshire, July 25, 1835.

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#### EFFECT OF CEREBRAL DEVELOPMENT ON THE SEX OF THE FÆTUS.

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*To the Editor of THE LANCET.*

SIR,—It has been a question among physiological writers, by what means the human embryo, which in its earliest stages presents no appreciable distinction of sex, becomes, as it approaches a state of fetal maturity, gradually and distinctly developed into male or female; and a variety of the wildest and most ridiculous opinions have been broached by a set of philoso-