The "Ki-Magi" System.

A
SCIENCE
Which
Reveals
The
CHARACTERS,
LIVES,
and
NATURES
of
MEN and WOMEN.

Companion Treatise to

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HOW TO READ MEN AS OPEN BOOKS.

CHAPTER I.

IN MEDIAS RES.

"And God said, Let us make man in our image, after our likeness; and let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth. So God created man in His own image, in the image of God created He him; male and female created he them. . . . And the Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul."

MAN being made in the Divine image there must be something of the Divine in him. Something of the Creator's identity goes into all created work. A maker is only a sub-creator, but he can be identified by his work, whatever that may be. A maker of horseshoes puts so much of himself into his work that he will recognise it as his when nigh worn out a month later. He puts into his work so much of his style—in other words, his individuality, himself—that another man in the same trade will frequently tell where the horse has been shod and who made the shoes.

We stamp our work with the impress of ourselves. No one else can do it just as we do; the work has taken with it something of our identity, of our time and life. So with Divine work, however it may be done, and no matter how little we know of the way in which it is done, it must reveal the Divinity that did it, although it does at the same time conceal Him. In "Faust" we find the universe described as "the living visible Garment of God."

In being's floods, in Action's storm,
I walk and work, above, beneath—
Work and weave in endless motion.
Birth and Death,
An infinite ocean;
A seizing and giving
The fire of living:
'Tis thus at the roaring Loom of Time I ply,
And weave for God the Garment thou seest Him by.

Thus sings the Earth Spirit in the language of Germany's greatest poet. He works for ever building up forms that reveal the spirit which lies behind the form. Hence, we have appearances representing qualities—things looking like what they are. Hard stones look hard; soft stones look soft. The same is true of woods—and of men.

Certain chemical elements will combine in certain ways, and in

no other way; they will crystallise into certain forms, and into no other forms. Chemicals reveal their characters when certain tests are applied with mathematical precision. In chemistry a certain quality takes on a certain form and acts in a given manner, and so becomes known.

This is true in plant life. A something not visible to the microscope is involved in the seed of the poplar, and in that of the oak. This, in due course, is evolved by the growth of the tree. The life spirit of each tree is in the seed, and this spirit never makes a mistake. The oak, as if knowing its strength, from the first throws out its branches horizontally, defying gravitation to drag it down. The slender and weak but graceful poplar causes its branches to grow almost perpendicularly, so that there may be the smallest amount of strain upon them.

The shipbuilder knows the strength of the wood by the form of the tree, if by nothing else; and, wanting strong wood, he selects neither the willow that droops earthward nor the poplar that shoots heavenward or skyward, but the sturdy oak, with its horizontal branches and its broad foliage, that defies the winds to tear it down or gravitation to break its mighty arms. The life of the tree is in the acorn, and with it the plan of its growth and architectural design. What corresponds to spirit in man is in the tree in all stages of its life and growth from the acorn onward.

The oak may become a stunted tree. It may be gnarled, and twisted, and a very poor oak, owing to many causes; or the circumstances of its life may be favourable, so that it becomes a complete tree, the ideal oak. So it may be with an animal, or even a man. No matter what happens to it, however, so long as it lives, what there is of it is oak; the oak spirit clothes itself in oak form.

Animals May be Said to Form Themselves on the plan of their being. A certain kind of life must organise itself on the plan of its life. Fishes and birds are possessed of the swimming or flying idea, and they form fins and wings. The spirit of each creature needs certain organs or tools for its manifestation and use, and during embryonic and the early stages of life it clothes itself with a form containing these tools or organs. Hence, when we see the claw, we know that tearing teeth accompany that claw, and that carnivorous appetites and destructive natures are represented by the claw and teeth. These signs have others invariably accompanying them. The curved, pointed, hooked, fang-like teeth would be no use in a long and weak jaw. Such teeth imply a short, strong, broad jaw; a low, wide head; a brain form in which the destructive elements preponderate. These, in turn, necessitate great muscles about the head, neck, and shoulders, and strength and springiness of the whole form.

The carnivorous spirit that builds for itself a tooth and a retractile claw must make the whole form to correspond, and the movements must correspond with the form. Therefore, if we could know the attributes of an unclothed carnivorous spirit, we could

build up from our experience the idea of its form when clothed; and when we see a carnivorous form we know that a certain spirit lies behind it.

PREDATORY CREATURES OF EARTH, air, and sea have some characteristics in common. One is a savage and repellant appearance, and another is a gliding and stealthy mode of motion. The Tiger, the Lion, and the Cat steal with velvet padded paws upon their prey, or watch until it is in reach of the final spring. The Eagle and the Hawk soar with scarce a movement of the wing over the fluttering prey, and drop like a bolt from heaven upon it. Even the Shark is in the habit of taking its prey by dropping upon it from above, its dorsal fin enabling it to dive swiftly.

Some of us have read of the merciful provision that compels a shark to turn upon its back before it can grasp its victim. Would such be a "merciful provision" for the shark? If so, how is it that the shark alone is crippled in getting its dinner by such provision? We may be sure that the shark is so organised that it can get its food in the handiest fashion; that it swoops down upon its prey with its mighty jaws extended, and kills it with the minimum of suffering. The shark turns on his back when his prey happens to be above him—a rare case; for fishes, not men, are the natural food of sharks.

We all know what is natural to this kind of animal or that. Mark Twain's study of the cow-catcher on some American railway lines becomes extremely comical when he suggests that the engine is never likely to go fast enough to catch a cow, so that there is no need for that piece of mechanism in front; and more laughable still when he puts it at the back, lest a cow should catch a train and bite a passenger—the idea of the cow biting being almost enough to make the cow itself laugh.

We cannot easily make studies of the faces of insects, but their forms, modes of motion, and the sounds produced by them are sufficient to indicate their characters. The mosquito is truly a beast of prey, and its flight is a gliding, soaring motion, entirely different from that of the house-fly or moth. The gadfly's motion is similar, and its sound is simply a bass to the mosquito's treble. The dragon fly, the ultimate of insect life—occupying in the insect world the position held by the eagle and lion in their respective spheres—has remarkable ease and swiftness of motion; stealing along with its four great wings outspread, and never making a flutter in the air. The non-deadly insects sufficiently distinguish themselves from the deadly ones to satisfy our eyes. We may be sure that the savage insects look horrible enough to the eyes of the insects they prey upon. This will apply to the denizens of the deep, and even to the microscopic animalcules found in a drop of stagnant water.

In all spheres of being our foes reveal themselves by their physiognomy.

A while ago the potato-growers of England were troubled in their minds by the appearance of the Colorado beetle. It had

managed, in spite of all precautions, to cross the Atlantic, and was commencing the devastation of the English fields. A local naturalist, partly informed on the subject, pronounced the new insect to be the deadly beetle. A London naturalist of some repute was sent for. He went and saw the insect and studied it, coming to the conclusion that it was harmless. It was a new insect to the naturalist, but he came to his conclusion on the ground that it did not resemble the beetle, but did resemble several other harmless insects. He was right. We apply the same rules in all the sciences. We act on the hypothesis that form and character correspond. Form gives the special combination. Things may be composed of the same elements, and yet differ very widely—so widely, indeed, that one of the combinations shall be a nourishing food, and another a deadly poison.

THE ABSTRACT QUALITIES OF THINGS are parts of them just as surely as the material qualities are; they are formed together and found together, and one represents the other everywhere. In the abstract, man is of Divine origin and Divine form, but he is to some extent a free agent in the world full of agencies outside of himself—agencies to which he must submit, or which he must learn to master and use. His life is a constant struggle for mastery over the forces of nature, and also over persons and animals around him; and while he is engaged in this struggle he is ever liable to undergo some changes himself, either for the better or for the worse.

Why this is the case we do not know. We can see benefits arising from this condition of things. We can see that, by mastering the forces of nature and making them obey our bidding, that we are working for the Creator. We can also see that, by working and obeying the Divine within us, we grow more God-like in spirit and in form. "God is forming man" might be read in place of "God formed man." Creation is going on to-day all around us, and we are helping with the creative work, or ought to be. We are making ourselves, too. In a certain sense, we are developing the embryonic rudiments that the Divine Creator gives to each of us, and as we develop them we show their actual presence in our forms.

The great work of life is reformation, literally re-formation—making anew—forming character on the Divine plan. And, consciously or unconsciously, we look at each other to find out how each is going on with the great work. We trust the good; they look good; the Divine in them shows through the human; our souls go out in confidence to the good and true.

THE GREATEST THINKERS OF OUR DAY are coming to the conclusion that there has been a series of creative acts. Man is no longer a supreme development of a protoplasm. When this is admitted by science we will turn back to Genesis and read the head of this chapter, and believe man to have been a special work of God, animated by the "breath of life" from a source Divine. We shall see that man is so formed as to receive the greatest amount

of the Divine Spirit, and to represent the Divinity of creatures below himself. To all inferior creatures man is an incarnation of the Divine being.

What plan the Creator adopted in producing us matters very little. If He involved in cosmic dust or cosmic gas all that creation has unfolded or will unfold He is just as much the Creator as if each separate thing had been put together by his special handicraft. It does not even make any difference to our place in creation; we are at the head of animate existence so far as we know it; nearer to the Divine than any visible creature of earth—man is an ultimate of creation.

PLANT LIFE HAS ITS HEAD IN THE GROUND, and expands its extremities in the air and sun. Reptiles, fishes, birds, and animals carry their heads horizontally, as a rule, and expand their extremities outward and downward. Man reverses the condition of the plant, and improves much upon that of the animals; he declares himself to be a child of the sun by carrying his head upward. In sleep earth claims him; he becomes an animal, a vegetable; yields himself to mother earth, and lies prone upon her lap, but when he wakes again he claims his relationship with something higher than earth.

Many animals seem to try to assume the erect position, and animal intelligence appears to be proportionate to their success in this effort.

Reptiles lie flat and look from below upward; the same is true of many kinds of fish. Most of the mammals have an eye on each side, and have but a poor outlook in front. Mammals, however, with flexible necks, and ability to lift the head and look around and below them, are far higher in the scale of being than the thick-necked and stiff-necked hog and rhinoceros. Even amongst men, the more intelligent are generally the more flexible and mobile. We do not expect high intelligence from persons who have wooden forms and thick, short necks.

We are now right in the middle of our subject. We see that the plan of creation is a plan of revelation; that forms are related to qualities, and even in inanimate and non-organised structures they frequently are the outcomes of chemical combination.

We see that plants are by the nature of things bound to take on from the elements around them a characteristic bodily form; that animals have to build up around them forms that enable them to manifest their own capabilities and live their own life; that men in the same way form themselves according to their breed, colour, and general heritage.

We see that creative work is still going on, and that men are growing collectively better and wiser, and approaching ever nearer the Divine ideal—the Man that God is making. If retrogression is going on in some minds and forms, that only shows that progression must have preceded it, and what has preceded may follow. If it does not follow, civilisation is not thereby much hindered; for the branch of humanity that tries to sink below the human level

perishes out of life and knowledge. Those unfitted by their vice to propagate useful members of society lose the power of procreation. Nature will have none of their assistance.

EVEN BIRTH DOES NOT ENSURE CONTINUANCE.—Those unfit to stand the strain of life die in infancy. If we grasp firmly the general principle that form is an outgrowth of the quality or qualities that lie behind; a representation of the character, disposition, and capabilities of each creature, we shall hold in our hands the key by which all objects of creation will become intelligible to our minds as we unlock the portals of knowledge.

Study character through form, and form through character, and we hold the cypher in which Nature's secrets are ever written—the cypher by which the human face divine, in language of its own, tells of its relationship to the divinity behind it; tells of its progress heavenward or otherward; tells of its condition with regard to its fellow-creatures; tells even its passing thoughts. Those who have this key and this cypher are the favoured mortals who can read men as open books.

CHAPTER II.

A STUDY OF ANIMAL FORMS.

"For soul is form and doth the body make."

FORM reveals soul in every department of life. The fact that form and character correspond is everywhere admitted; denial is impossible. Take away this and there can be no knowledge. Let this fact cease to be an actuality of creation and chaos is here again. "And the Earth was without form and void" will be the vigorous expression of a modern state of things, instead of the commencement of a very ancient narrative. The "waste and void" of the new version does not appear so expressive as the "without form" of the old one. Without form is almost, if not quite, inconceivable; it seems to suggest without idea and without word. From the time that the "Spirit of God" moved upon the waters" until now the forming process has been going on, and higher soul life and greater capacity has ever been manifested through higher forms.

EACH GREAT GEOLOGICAL EPOCH has had its master ideal form. At one time the fishes were kings of what then might be called earth, the shifting, unformed lands not yet being fit to contain life. Uncounted ages rolled on, and then came the reptillian era. Reptiles floundered in the warm mud, wobbled through slimy swamps, fed on the rank vegetation, flew through the murky, pestiferous air. Wallowing amphibians fed on fellow reptiles on the earth and on fishes in the muddy, shallow seas: reptiles were kings of earth and air—of air, as we know it, there was none. Had the reptiles been sentient creatures and capable of thought they would have regarded themselves as ultimates of creation, nor could they have conceived of any higher form in which the Creator could embody himself.

Ages and ages more, during which the great tropical forests—tropical in all regions then—became masses of coal, and these sank under the seas for some score of centuries, and reappeared and grew other forests, repeating the process again and again, until the air contained oxygen enough to support warm-blooded life, and mammals began to contend with the great reptiles for the supremacy in the earth. Before the new creatures the reptiles shrank, and from being gigantic, earth-shaking monsters, dwindled to frogs, toads, snakes, and lizards.

And now man is king, ruler at once in form and soul; his head in the air, his person erect; his fore feet set free from the meaner service of bodily support, and made into that wonder of Divine Architecture, the human hand.

Is this the end? Can there be no higher form than the human? We know not. Man may become much higher. He is an ultimate of the mammals, but no one will dare to say that he has already reached his own ultimate of development.

Imagine a being strong as the strongest, swift as the swiftest, beautiful, strong, glowing with health and life; give to that being all ancient and modern skill and lore; let him have all the philosophy of ancient Greece and modern Europe; give him the artistic and inventive skill of all the ages; let him be a Bacon, a Solon, an Aristotle, a Plato, a Ptolemy, a Copernicus, a Newton, a Kepler, a Phidias, an Angelo, a West, or a Hunt; lift him above the petty vices of humanity, make him perfectly happy and perfectly good, and what will he be? The possible man, the man of the future, the man that God is busy making; and the woman who mates with him will be his peer and in every sense his equal.

We have not, however, to wait for the possible man; we have rather to help him to appear in the fulness of time by making the best and most of the existing men and women. He who comes into the world and falls out with it because it is not yet all that it can be and may be, because its men have not yet reached the ideal standard, because all its women are not fair and good, is not the kind of man who will make it better.

The True Reformer uses all the good that is as a stepping-stone by which he progresses to better things. The good that is is the foundation on which he lays his stone of the mighty temple we are all building. Granted that man is not yet all that he may be, he is, nevertheless, much that he was not some ages ago. If the hypercritical man turns his back on us at the end of the nineteenth century, and says we are not what we might or ought to be, what would he have done had he been born a few æons earlier? What would he have said had he been introduced to the prehistoric man of the rough stone age? What would he have thought of human life in the preglacial epoch? How would he have liked the great, black, hairy, naked limbs of his mother and father? What would he have cared for the guttural thunders of their uninflected speech? What would he think of a few untanned skins as his only swaddling clothes—of a draughty cavern as his

only roof—of raw or half-burnt flesh as his only food—and that only obtained by the daily peril of his life at the hands of his neighbouring enemy, or from the tusks, horns, or fangs of the wild creatures he pursues?

The human beings of the present day, though still far from perfect, are almost angelic compared with the cave-dwellers who were contemporaries of the Mammoth, yet these were human and our ancestors.

THE STUDY OF FORM INCLUDES MOST OF what we have to study in these pages. Certain forms of body suggest the forms of certain animals, and, when persons have a general resemblance to any animal in form and movement, their mentality and their moral qualities have a general resemblance. "Look at that fox," says a disciple of Lavater to a friend.

"Fox! I did not think you knew him; I'll introduce you."

"I didn't speak of any Mr. Fox. I spoke of that fox."

"Well, that is Mr. Fox."

"Then he must be Fox by name and fox by nature?"

"Truly that he is. He is a most cunning man—a lawyer and money lender. He is only invited to go out with the hounds because he is too powerful to be offended Half the men here would be glad if he broke his neck before night, only they are sure that that would make matters still worse for them."

We may study Human Science in any Zoological Garden. There are men and women who resemble, more or less, almost any animal to be found there. Who has not seen thick, fleshy, bearish-looking men, who are just as bearish as they look? Who has not seen ox-eyed, bull-necked, heavy-shouldered men, with deep booming voices, and the appearance and something of the temper of the buffalo?

Can we not call to mind many men with large heads, broad and powerful features, heavy jaws, thick necks, and with masses of curly hair and beard, the whole reminding us of nothing less than the South African lion? What are the characteristics of these lion men? Are they quiet and easily put upon? Are their voices sweet and soft? their manners gentle and kind? Nothing of the sort. They are strong and rugged; their voices are deep and penetrating; there is a deep under-current of r-r-r-r mingled with their tones; and you have no particular desire to provoke their antagonism. Such men are fond of hunting and active sports, and when they rest, they rest, and work no more until they must. There are to be met now and then short, compact, active, grizzly little men—men who are always fussing about doing something, or thinking they are doing something. They have round eyes, short faces, full but short and curly beards. They look right up at you, and speak in short, snappy, high-keyed tones, that remind you of nothing but a tan terrier busy hunting rats.

IS ANY LADY READER MATED to a smooth-haired, soft-footed, low-voiced, purring, gliding man—one who has stolen his way into her good graces—hidden his selfishness and his sensualism: one

who is, on the whole, good-tempered when he is well fed and kept warm and comfortable; one who is smooth enough in the presence of his peers, but mean, cruel, and savage at home, and of terrible temper when anything goes wrong? He does not like hard work or close application; he is a merchant who takes unusual risks, and a man of low commercial principles; he likes to speculate with other people's money; he is a broker with doubtful reputation, a bookmaker, a gambler. While successful he dresses with much care, has clothes of faultless cut, the whitest and finest linen; he may overdo the jewellery department a little, for he is fond of personal effects; he dines at the best hotels, knows wines and soups, and gets much animal enjoyment out of his life, but allows his wife little enjoyment of any kind. When angry an evil gleam comes into his eyes, and his stroke is sudden, treacherous, and terrible, for he is simply a human tiger. Yes, a tiger; there are other signs of this relationship. He is wide in the region of the cheek bones, and has thick, temporal muscles; he has a trick of silent watching with half-shut eyes, and taking pleasure in what is manifestly painful—the agonised sigh of his broken-hearted wife, for instance; his face is broad and short, his head is low and broad and round; the mastoido-sterno muscles of his neck are strong and prominent; his jaws are short from front to back, and yet wide and strong, and give great capacity of mouth; his teeth are firmly set, and the corner ones are prominent; his limbs are tapering and lissom, and his movements lithe, springy, and elastic. Who with eyes to see can fail to recognise the royal tiger when he appears amongst men?

Dogs we may meet at any street corner: the thin-faced, long-necked greyhound there will shoot away from you with long, quick strides, covering his hundred yards in ten seconds or so, and seeming little the worse for the effort. That rough-haired, steady-eyed collie will do your bidding, and be true and faithful when many of your friends have left you. That short-faced, snub-nosed pug has enough conceit in him for a dozen dogs—or men—and if you speak to him he will sny up his significant snub and proceed to convince you of his own importance and your own insignificance. Do not get angry with him; it is not worth your while. Everybody knows him. His Maker, some thousands of generations removed, puts up with him and gives him his chance; you may do the same.

There is a deal of difference between recognising animal types in men, and falling out with them because we see those types. While we are looking and seeing what we see, he may be looking also and coming to his own conclusions. He may see something of the man in us, and also something of the animal. What we have to do is to learn what we can of him, and use the knowledge gained for his benefit and our own. The Pug, the Collie, and the Greyhound we have just been looking at are all harmless dogs. We have no quarrel with them, and perhaps we had better not quarrel with the Lion, Tiger, or Buffalo if we value our own skins.

WOLVES, JACKALS, HYÆNAS ABOUND amongst the roughs, hoodlems, or larrikins of any city or country. How they run in packs and hunt in company. The larrikins and roughs are as cowardly when alone as wolves are when met singly, and they are just as savage, senseless, and bloodthirsty or destructive when they form part of an infuciated or salacious crowd; a street mob or prowling gang taking advantage of female helplessness. Listen to the talk they indulge in; the interlarding with obscene utterance, with profane expletive, with sanguinary adjective; the coarseness, the vulgarity, even the indecency of their manners. How like the howling of wolves their "barracking" cries; how like the laugh of the untamable hyæna is the ring of their rude mirth. What mean animals they represent. How far such as these are from the stateliness, strength, and nobility of some types of animals; how far above them are the horse, mastiff, bloodhound, Newfoundland, lion, and elephant; how nearly are they allied to coyotes, foxes, skunks, rats, and ill-fed, unowned tom-cats.

Lounging at street corners, or slouching about with a short pipe in his mouth, we may often see the human prototype of the bull-dog. His face is about as broad as long, and rather flat; his head is short, low, and broad; his eyes open roundly, and are placed far apart; his nose is driven into his face, or in some other way distorted; his lips are firmly closed; his mouth long and wide. When he has his "bull purp" with him you are compelled to see the truth of the old adage:—"Birds of a feather flock together." Successful pugilists—men who make pugilism a profession—are generally men of the hardy, enduring bull-dog type The dog takes his punishment without a cry or a sign, and so does the man. A dash of the bull-dog in a man is not always a thing to be deplored. It gives tenacity and energy; it tells of holding-on qualities; it is especially useful in a fighting age.

HORSES ARE PRETTY COMMON AMONGST US.—A hard, inflexible hand, with finger ends close together, and all working at once; fingers curved inward, never straightening right out, owing to their stiffness; strong, slow-moving limbs; face long and hard, jaws long and coming well forward, hair stiff, ears long from top to bottom and narrow and pointed, movements slow, temper calm; not given to speech, but to sober, plodding action—human horses these—strong, slow, good-tempered Clydesdales—as men well worthy of all confidence and respect, not prepossessing in appearance, not brilliant and clever as members of society; rather dull company for playful and talkative wives, poor wooers, not much to say for themselves at any time; but how patient, how steadfast and good, how true and honest; and at bottom, below the deep silence of their nature, how sympathetic and kind, how willing to put up with inconveniences, and work on behalf of those whom they love. Barkis, the wooer, who sent his short message to Peggotty—"Barkis is willin'," was one of these characters. Your human Tiger may be sleek, and handsome, and winning; but if you want a happy married life with a man who will plod, and

work, and save, and place your benefit before his own, you had better look for a human horse. He, at any rate, will produce more than he consumes, and leave the world richer than he found it. The Tiger will do just the reverse, and will have his enjoyment, no matter what it costs.

THERE ARE A FEW BANTAM ROOSTERS to be met with now and then. They hide their hands under their coat tails, and strut and crow, and assert themselves at every opportunity. They are always little men, but they make the most of the inches nature has given them, and usually carry a tall, bell-top hat to bring themselves into notice. They are vastly swelled with self-importance; are easily put upon their dignity; are very testy and tetchy. They sometimes generate large ideas; they are generally buoyant and sanguine; when allied with longer fibred and more sagacious men they are useful members of society. They are not, as a rule, bad men; they are sometimes over-sanguine, and land themselves and others into difficulties. They ought to marry wives who possess but a small modicum of speech, for one of these little bantams will talk enough for two or three.

If you want to borrow money think twice before you have any transaction with a hawk. You will know him when you see him. His eyes are small, bright, black, beady, and placed too near together. There is no danger of them coming into contact at their inner corners, for they will not be able to climb over the sharp, high, hooked, Himalaya range of the face—the hawk's beak. The remainder of the face is thin and sharp, the lips thin, and the mouth closes firmly. If the hawk has attained middle age the chin has begun to make some attempts to fraternise with the nose. If you happen to belong to the social, happy, easy-going, kindly, plump, well-rounded type; if, in other words, you are a dove, a partridge, or a duck, you had better turn round and go away than have anything to say to the hawk—better call a meeting of your creditors and boldly state your position, for if the human hawk gets you in hand he will not let you go until he has picked your bones by the ancient and modern process of "shent per shent."

In looking round amongst our fellow-creatures, we find ourselves in a human Zoo most surely. The difficulty is not that of finding people who more or less resemble some animal or bird, but that of finding people who do not. There are respectable members of society, and men of business who resemble elephants and rhinoceroses; heavy, slow, thick-limbed men, whose flesh appears to lie in folds; broad-faced, thick-skinned men; all their movements are heavy and powerful They charge right forward to the end they seek to attain; you cannot turn them, cannot make them feel, cannot get at their hearts or consciences; the arrows you shoot at them have no more effect than had those of the people of Lilliput on Gulliver. What they want they will get if the getting is possible; and what they get they will keep, no matter how much shame sticks to the object attained. If you want to hit the fatal spot in one of these pachydermatous men, aim not at the brain,

your bullet would only flatten on the skull; waste not your time and skill in trying to hit the heart, the creature is not conscious of possessing one; it ignores that organ just as it does conscience and sense of reputation—aim at the pocket, that is the sensitive part of the animal, it can feel there. It is sometimes found in parliamentary, and sometimes in judicial positions. Ere now it has waded to such positions through blood; even to-day it will wade to them through mud.

Even our Lady Companions and Friends help to fill the Zoo. Their forms, motions, and manners very frequently suggest relationships which must strike the eye of any keen observer. There on that low easy-chair sits Miss Spaniel. Make a short study of her—she is worth it. Look at her round, dimpled chin; her plump, red lips; her full, rosy cheeks; her short, saucy, tip-tilted nose; her now smiling, now pouting mouth; her broad, low brow, and thickly-pencilled eyebrows; her large, round, liquid-looking, dark eyes—eyes equally ready for tears or laughter—eyes that ask for caressing sympathy and smiles; look at the short, low, round head and its masses of glossy, curling hair. Can you possibly mistake her for Miss Swan, or, indeed, for any other lady present in this Zoo? She is a very winning little woman. Unless you mean to marry her you had better not enjoy too much of her company; she has a trick of nestling into your bosom and your heart, and defying you to turn her out. If you do mean business you may as well know what the business means. Miss Spaniel is a capital household pet, but if you do not understand her and manage her rightly she will prove herself a pest. She will be very fond of you, and will, in her way, do the very best she can for you; in return, however, she wants your company and wants you to be in a kindly and caressing mood. She is a very jealous person; do not praise any other lady in her presence. Be very kind to her; surround her comfortably; do not put too much hard work on her shoulders; and during the earlier part of your married life do not expect much of self-denying and energetic action from her. She mends as she grows older; becomes more sensible; and her children gradually cause her to outgrow her self-indulgent form of selfishness. If you are cold, and hard, and unsympathetic, you had better not introduce her to male friends who have more winning qualities; the results of such introduction may not be entirely satisfactory.

Look at that animated and lively young lady in conversation with your friend, Mr. Brown-Bear. Her name is Miss English-Terrier. She is one of the smooth-haired dogesses; has a high, round forehead; a quick, intelligent look; all her answers are ready. She appears to be well informed, but if you question her a little, and try to carry the subject beyond her depth, she turns it cleverly and leads up to some other topic, or in her light, hopping manner trots quickly off to some other acquaintance whom she suddenly perceives in another part of the room. Of acquaintances she has a great number. She is an inveterate gossip. She is

trotting about all day putting her nose into all kinds of unexpected corners, and trotting off after a sniff and a look have satisfied her mind. Her nose seems to have a movable point. It is, as a general thing, long and sharp, but sometimes it appears to point right out, and at others it turns up a little She is always asking some little question, and if you are a trifle sore about anything, she will just touch the sore as if with a light lick, letting you feel that she knows of its existence and could make you smart. Like Miss Spaniel, she has large, dark eyes; but in this case they are shallower, have less feeling in them, do not attract you so much, or cause you to desire to caress the owner of them. Miss Spaniel will sit at your feet, with her head in your lap, for hours. Miss English-Terrier will slip away from you and go trotting from room to room. Her voice is rather sharp and thin. If she gets angry it is disagreeably so; and if she has a rival in your affections she will find out who in a very short time, and make matters unpleasant for all concerned. If she marries Mr. Brown-Bear, with whom she is still keeping up the conversation, she will teach him to dance and lead him out more than he has been in the habit of going for some time. She will be a very watchful and attentive wife; will not take up much room in the house, but she will be in all parts of it, will know all that is said in it, and almost all that is thought. She will be affectionate and true, and, if your cause will be advanced by social life, she will make some kind of social circle for you. She is not strong, nor very hard-working. She likes to dress well, and ought to marry a man who has a liberal income. You will identify her when you see her again.

Look at little Miss Rabbit sitting there with her feet well drawn under her, so that she can get up and run at a moment's notice. She always sits so that no one can get behind her. If you speak to her from one side she will turn and face you as if to see that you have no designs upon her She has a pert, bright, interested, and attentive manner, but you can easily see that she is nervous, and inclined to start and take fright. She has large eyes and well arched eyebrows, has narrow jaws and a runaway chin; her forehead is full in the lower and central parts; her mouth is conical in shape, drawn back, and a little down at the corners; the upper lip slightly overhangs, but is very weak, and has many nervous, twitching movements—can hardly be kept still if the lady is feeling any emotion whatever. At the dinner table Miss Rabbit nibbles a little of this and a bite or two of that. She never seems to eat a good, solid meal. The form and motion of her mouth and jaws tells of nibbling and gnawing rather than tearing or grinding. She is a fussy, inefficient little person, consequential, affected. She is really very timid, but puts on at times an air of boldness that startles no one more than herself. If she marries early she generally has a large family in the shortest possible period of time. She has a singular fondness for the church. When she wants a husband she makes warm slippers for the feet of the curate. She is very affectionate, highly proper in her conduct, full of wise little

saws and maxims that she has learned from her elders. Her life is little and shallow; it is full of details and attention to babies. She is apt to lose health and become querulous and irritable. She would tire out the patience of any other man but the pale, poor curate, whose social interests she has never been able to advance. The constant tepid bath of her affection kills love; still her patient husband dutifully adheres to her, makes excuses for her inefficiency, her little jealousies, the want of foresight and tact by which she offends those who might have given him a lift into preferment, and accepts gratefully her annual present of another rabbit to nibble up the slender stores of the family.

There, in the centre of the room, talking incessantly to everyone within the range of her voice, is the well-known society lady, Miss Parrot. She has round, shallow-looking eyes, that look off one side of her face as well as out at the front; her features are all sharp and thin; her nose is long, and slightly hooked at the point, and prominent at the bridge; the upper lip is short, and almost disappears when she smiles; the lower lip projects a little, and has a small-pointed, peaked chin just below it. Miss Parrot has any amount of power of utterance combined with the smallest amount of thinking capacity. Talking is her pleasure; and that principally consists of repeating what has been said not long before, and echoing what she now hears. If you have sufficient patience to listen to her for an hour you will hear her uttering sentiments and opinions entirely opposed to each other, and will see by her manner that she is utterly unconscious of any self-contradiction. She seeks for admiration, and if she is a "pretty poll" she will get it from the danglers who surround any bright object in the social zoo, but if you buy her and put her in your own cage, you must not expect her nature to undergo any serious change by the change in her position and circumstances. She will hop about on the gilded wires (if you can afford to gild them) all her life, crying "pretty poll," and uttering her round of commonplaces. Do not expect depth of feeling, sympathy, and soul companionship from her; do not imagine that she can go down with you into the valley and the shadow, or with you take a place amongst the starry souls of the universe. Her life is little and commonplace; her virtues and faults are of the everyday order. She spent her time at school in learning how to repeat what she heard; her lessons had none but superficial meanings; she could never generalise, and so never progressed. If she has any sons she preaches to them the doctrine of the commonplace until they are nearly daft.

Miss Magpie does not like Miss Parrot, and that dislike is reciprocated. Both ladies are loud-voiced. They are both constant talkers; they are both fond of admiration. If you will study their voices, you will observe that Miss Parrot dwells on the vowels, while Miss Magpie is fonder of the hard consonants. One says, "Oh, look," and the other says, "Just fancy." Miss Parrot is often tall and graceful in movement, and is called handsome. She has long feet and hands that have just the

faintest indication of being claw-tipped. Miss Magpie is never tall In one case, the nose is always hooked; in the other, it is sharp, and stands out on the face in two straight lines, meeting at the point. From the eyebrow the nose does not run perpendicularly down, but shoots almost straight out. The result is that the nose point goes first everywhere, and digs into everything. She is a pert and impudent lady; her features tell of pugnacity and impudence. She has cheek enough for anything, and is very fond of presents; likes things that glitter; can scarcely pass a jeweller's window. She also likes high colours and sharp contrasts in dress. If you have any special business that you do not wish all your neighbours to talk about, you will kindly not tell it to Miss Magpie. She is a bright little person, and has always plenty to say for herself. She is a flirt and a gossip, too. Still she has been known to become a good housewife and to be very fond of her husband and family.

That little, short person—the lady who seems to be trimming the lace about her throat and wrists as if it were feathers, and who speaks in such cooing terms—is Miss Dove. She is not always so quiet as now; she is a jealous lady, and has a temper of her own. She has not the talent of Miss Nightingale, whose little brown head is waving about while her voice fills the room with rippling tones of music, but she has several of the useful domestic virtues. She is full of affection; still, if she becomes a widow she can console herself with number two very soon. In these respects she resembles Miss Duck yonder.

Oh! you wish to be introduced to that rather striking personage, do you? Yes, she is, as you see, very tall, and moves with a slow, easy grace; her neck is long and slender; her face has not much gesture nor movement in it; she appears to like walking about slowly; you never hear the fall of her foot. Nearly everyone she meets turns to admire something about her; probably her easy motion. She is not a vivacious person, nor is she noted for brilliancy of intellect; her name is Miss Swan. There is not time to make full studies of all the people here. We can, however, at any time come into the Zoo and look at a few more specimens. Little Miss Sparrow will be hopping and twittering about when we come again; Master Monkey, that boy whose face never appears twice the same shape, will be climbing his pole just as usual; Miss Owl will be found blinking in her quiet corner; and Mr. Hog will be rooting up the ground, and trying to find something to eat, just as now. Everyone knows a few social hogs. They have poor heads; corrugated and wedge-shaped, little foreheads; bristly eyebrows; little, mean eyes, too close together; shapeless, baggy ears; full cheeks, hanging down on the sides of the face; short necks; loose, large lips, the upper one over-hanging. They eat and drink, and drink and eat again. They waddle in their walk, and have a perpetual grunt in their voices.

They are all men and women, after all. That there is something of the animal in each of us we all well know. We have to make

the best of this, and work to enhance and increase the humanity and the divinity within us "till the beast within us die." There is some advantage in knowing which animal we resemble, for we then know the worst side of our nature. Better have the comparatively clumsy head, hands, and feet of the ass than the claws of a tiger. If you see what animal I resemble you see what is the possible worst of me. Each may say:—"I am a man, or woman, with some mixture of the animal in my nature. If you study me carefully you will find out which animal I resemble, and, therefore, which animal's vices are likely to be mine. If I am a Dove, the harmlessness of the dove is mine; if I am a Falcon, I may rend and tear; if I belong to the destructive classes of animals, I have all the more need to know myself and contend with the animal within me."

WE ARE ALL ANIMALS IN ONE SENSE, and in another sense all divine incarnations. All forms of life have their place in the microcosm man. The life of the rocks is seen in the bony system; that of plants in the unconscious labours of growth and repair; that of animals in the moving, feeling, muscular, and animal activities; and that of all life above him, Divine life included, in his spiritual nature. In physical structure man is entirely animal. All his movements are performed by animal means of locomotion; all his vital and reproductive functions are animal; and all the lower portions of his brain, and all the functions connected therewith, are animal. His senses and instincts, too, are animal. He is born as an animal, grows as one, and, to all appearance, frequently lives and dies as one.

Still he is not animal only. He differs from animals in erectness of form; in the possession of a real face and a real hand; in the relative prominence of the cerebrum or large brain. These constitute the external differences; and the psychological ones corresponding therewith, and shown principally in face and brain forms, are superior reasoning ability; greater constructive and inventive faculty; power to conceive abstract ideas; desire to forward the interests of others as well as our own; love of beauty and aspiration towards the ideal; conception of Divinity and desire to worship. In the possession of language, memory of the long past, hope for the far future, and last, but not least, man is more than an animal in having a Sense of Personal Responsibility to a Power Outside of and Superior to himself, and in the possession of Conscience and Will.

In the lower stories of his being he reflects and reciprocates all the material and animal forces and activities of the universe of matter; in the higher ones he is a living Soul, and reflects and reciprocates all the Soul Forces and activities of the Universe of mind. He is the first perfect Microcosm or Universe in miniature—the first creature on this planet who has a higher nature superimposed upon a lower one; therefore, we need not be surprised to find the animal and human struggling for ascendancy both in the faces and forms of human beings, and the common consciousness

of all who have risen high enough to see that there is a human ideal to attain and an animal nature to curb and repress. Pope states his position well in the lines:—

> Placed on this isthmus of a middle state,
> A being darkly wise, and rudely great;
> With too much knowledge for the sceptic side,
> With too much weakness for the stoic's pride,
> He hangs between; in doubt to act or rest;
> In doubt to deem himself a god, or beast.

CHAPTER III.

A STUDY OF TEMPERAMENTS.

"The nervous is the most vivacious, next the sanguine, then the bilious, while the lymphatic is characterised by proneness to inaction."—*Geo. Combe.*

ANYONE who wants to know his fellow-men, who wants to be able to read them as open books, must take the trouble to study temperaments. A person who wishes to be master of this useful, beautiful, and intricate science—master of the art of reading character—will not regard any branch of the subject as troublesome or wearying. Some men devote their lives to the study of beetles. They are not wearied. Surely we shall not grow weary of studying the more important subject—man.

The student of beetles has to catch his beetle; the student of men has subjects always at hand. It is not possible for a student of human science to spend an hour in the streets of a large city without seeing persons who are not fit to be at large—persons whom it would be a kindness to deprive of all liberty of action. There stands one at that corner—low, slouch hat, coloured kerchief tied on his neck in a manner suggestive of the hangman's knot—a curious trick that one class of criminals have—that of wearing something round the neck that almost asks you to take and strangle them on the spot and save the State coffers by and by. This one is at large, but his brutalised countenance; his little, angry-looking, sensual, and piggish eyes; his bad, broken mouth; the evil, depressed look on each of his features, singly and all collectively; the sag of his shoulders, the pocketed hands, the manner and attitude, all tell of the sneak thief that may help in any burglary or crime, but cannot plan one.

It is well to be able to tell at a glance whom to trust, whom to avoid; well to have a chance of finding virtue and truth in some unexpected guise. Those who would have this knowledge and this power must study temperaments, for from the temperament alone the main lines of the character, talents, and disposition may be predicated.

A man—a stranger—walks into your presence: he puts down his hat and stick, and takes a seat, you watching him and his movements. If you are a reader of character you have taken some hundreds of observations, and come to an equal number of conclusions while he has made the few movements named. By

the time he is ready to state his business you have a good idea of what it is likely to be, and how he will state it. You have caught some half-dozen glimpses of his naked soul, and know more of him than he will ever tell you with his tongue. If you have not taken the measure of your man by your first few glances you are not yet a reader of character.

The reader has seen the man, and can now answer your questions for the next half-hour. He knows his height to a fraction, his weight, his general build and proportion, his quality, and colour. He knows which portion of the system preponderates, and what each preponderance means. He knows much about the activity and strength of the man; knows something of his moral status, his mental activity and strength, his intelligence, his social qualities, and whether he is an educated or an uneducated man. If he is a highly-trained student of men he also knows something of the breed of the man who has just come into his presence. He has learned to read men little by little, line by line. Each reader of this manual can do the same to a greater or less extent by following the instructions given in these chapters and by constant observation.

In studying men we have to begin with generals and go down to details. Broad, bold outlines first, details second, shading and colouring third and fourth. Begin by a study of the whole, the general appearance and form of the man, proceed to study parts and their relationship to the whole, finish by a detailed and careful study of head, face, and hands, leaving no hair nor line unnoticed.

This manual is written on the plan of the preceding paragraph. If the student will take note of each lesson in its turn, and verify its truth by studying his friends and neighbours, he will have no small amount of valuable knowledge and experience by the time he has read the book.

What are the principal parts of the human structure? Bones, muscles, brain and nerves, stomach and intestines, heart and lungs. When a part preponderates in the formation we are apt to designate the man by the preponderating part; to call him a bony, muscular, nervous, or fat man, as the case may be. From this tendency to recognise peculiarities of structure by name comes a classification of temperaments. For a long time this classification was not by any means a scientific one. It only becomes scientific when we recognise the groundwork of each temperament, and study the relationship of one temperament to another, and the results of various combinations of temperaments.

The word has been used by some writers with great latitude. Burns, of London, makes out a case for the possession of about seventeen temperaments; and in everyday literature we commonly read of artistic, musical, poetical, mechanical, and amorous temperaments. If the word has to be used in this sense we shall have as many temperaments as faculties, or even as many as combinations of faculties—a practically infinite number. A

temperament is a condition of body which is at once fundamental, specific, and distinct. Bones are fundamental; they are in all animal structures; they have a specific task to perform, that of supporting the body; they are distinct, not being liable to be mistaken for anything else. Therefore, a man may be said to be of the bony constitution or temperament if his bones are a prominent part of his body. The same remark will apply to the muscles, to the nutritive system, the vascular system, the brain and nervous system. Each of these is a bodily condition, fundamental, specific, and distinct, and therefore the basis of a temperament.

This question of temperament is so vastly important both to students and general readers who wish to know something of themselves and their neighbours that it cannot be left without a few illustrations and some further consideration. "He is a man of a sluggish temperament" is an expression now and then heard. It is not correct, because sluggishness is not a natural condition. Mr. Jennings, the fat man of Tasmania, weighing, as he does, thirty-two and a half stones, may be sluggish. He is so heavy that to move must tax his muscles in no small degree, but this cannot be regarded as a normal condition; hence, it is not a temperament. There can be a sluggish person, but there cannot be a sluggish temperament. As a matter of fact, the gentleman, whose illustration is here given (2), is not a sluggish character. Considering how much he has to carry about with him, he is pretty active. A proper course of hygienic treatment would restore his normal proportions. He would then be a strong and well-built man. Dr. Cheyne, of New York, was heavier still. He weighed 518 pounds, and had a special carriage built to enable him to visit his patients, but he took 300lbs. off his weight by dietetic measures without suffering a single dav's sickness.

2.—Mr. Jennings.

MEDICAL MEN AND THE OLDER PHRENOLOGISTS for a long time had an artificial classification of the temperaments. They spoke of men as being of the Bilious, Nervous, Sanguine, and Lymphatic temperaments. Modern Phrenologists have adopted a more natural classification. They speak of the Vital, Motive, and Mental temperaments; for an easily recognised and workable classification, this is good. Its objection is brevity. Two well-marked temperaments—the Nutritive and the Vascular—are included in the term Vital, and two others—the Osseous and the Muscular—are included in the term Motive.

In "Physiognomy Made Easy," a small work published some months since, the former classification was adopted. For that brief pamphlet it is sufficient, but here we must go a little further, still keeping, however, to a simple study; to deal with the temperaments in their compounds would take up too much space.

Baron Von Liebig, the great German chemist, is a sample of the Motive or working temperament of the old classing, and also of the Osseous and Muscular in the new. In classing men by temperament we mention first the most prominent, second the next so, &c. The most prominent gives the key, the principal clue to the character. All the temperaments are of necessity present in each form. In this case the classing would be, in a scale of 1 to 7:—Osseous, 6; Mental, 6; Muscular, 5; Vascular, 5; Nutritive, 4. Of such a man, no matter where you saw him nor under what circumstances, if you were a student of Human Science, you would say—"This man has an abundance of working power; with brain and hand he will always be busy; idleness to him would be worse than death." And noticing the relative deficiency of the Nutritive temperament, you would warn him against overwork, and tell him to take plenty of food and rest. A plump, rosy woman, with short, round limbs, and broad, smiling face, if married to a man of this type (and men of this type are not scarce), will find it to her advantage to tempt her husband's appetite with a variety of nutritious foods; will give him soups, eggs, milk, fish, and plenty of farinaceous porridges and puddings. By this means she will make him stouter, and more comfortable in appearance and temper, and she will materially prolong his useful, hard-working existence. Such men care too little about what they eat and about warmth and personal comforts generally. They need someone to care for them. They are very enduring and enterprising; they never know when they are beaten, and go on slogging away at their opponents, and mastering their difficulties, until they conquer at last every obstacle to their progress. They verify the old adage—"A lean horse for a long pull." They are the pioneers, explorers, and the founders of new empires. If the stout wives of such men take the soft, semi-fluid foods—the soups, the gravies, and the puddings—and give to their husbands the dry, lean meat, the lentils, and the bread, they will grow fatter and their husbands leaner to the end of the chapter—the early widowhood which they are unconsciously bringing on. The

3.—BARON VON LIEBIG.

study of temperament, therefore, has its practical use in the every day life of all sensible people.

In Norman M'Leod (4) we have a sample of the Nutritive temperament, combined with the Vascular and Mental. Such men as this do not like hard work with the hands, but they are excellent men of business; are very practical. They can manage affairs and men, and keep well abrea t of their own times. Such men, if in the church, wield a great amount of influence; if financial and commercial matters engross their attention, they lead in these labours also. They live in and for their own generation; their question is—"What is the good of it?" They do not think, nor invent, nor philosophise, still they frequently give practical shape to the thoughts of thinkers, and commercial value to inventions. They enjoy life on the physical plane; they eat, drink, and are merry; they are social and domestic; they have many friends, and frequently gain much political influence. Their bellies are bigger than their brains, but they do not appear to be any worse off on that account. By their weight and mass they appear to push competitors aside, and leave them in the rear. Their heads are full and wide in the base; the animal and selfish propensities are well developed in all these men. They are not of necessity bad. If the brain is high, like that of (4), they keep the animal feelings and desires within the bounds of legitimate gratification. Such men ought to live differently from the type of (3). If they take life easily, and feed and drink freely, they will burden themselves with a load of useless fat. They enjoy eating, and can digest more than can be worked off by any labours they are likely to undertake; their adipose tissues get enlarged and filled with fat; cushions of fat form between the muscles, and sheets of fat line the skin; masses of fat fill up the greater and lesser omentum, and the abdomen protrudes, and thick layers hang in the cheeks. Movement becomes difficult, and fat, not being worked off, becomes old, until, at last, the man mountain is ready to cry out—"Who shall deliver me from the body of this death?" If the man had only studied temperament, and adapted his food to his organisation, all this trouble might have been avoided. People in whom the Nutritive temperament preponderates ought to take dry foods containing but a reasonable share of fluids and heat-givers.

The presiding genius of the Nutritive temperament is the stomach. Some people worship their stomachs; at least, they sacrifice to that god—no other. The stomach is aided by all the viscera below the diaphragm in its work of providing nourishment. When this, the abdominal region, is large, the Nutritive temperament is prominent.

The Heart is King of the Vascular System.—This fills the upper part of the trunk. People who have large hearts and lungs can æriate and circulate blood. In the lungs the blood gets the vitalising oxygen, and returns to the heart, thence to be pumped through the vascular system to every part of the body. The Vascular temperament is active, the Nutritive passive; the two

4 ---NORMAN M'LEOD.

combined give the life-making and life-carrying temperament—the Vital. A man with a large chest and comparatively small abdomen will be incalculably more active than one who has a large abdomen and relatively small chest. Still, if the abdomen is too small there is not enough nutrition and little staying power. If an employer of labour wants work done, he will see that he gets men about him who have large chests. Even large bones and muscles count for little if the chest is poor. Sir G. Wolseley, in giving orders to his recruiting sergeants not long ago, recommended them to pick youths with large chests, whether their heads were large or not. He had found out that large chests were necessary to endurance.

Mothers who have the interests of their sons deeply at heart—and what mother worthy of the sacred name has not?—will see that they develop their chests, that they work and play freely in the open air, and have well-ventilated sleeping rooms. Coop a child up in a warm room, and induce it to keep still, and it will surely die of consumption of the lungs. A good vascular system is shown by fulness of the face in the regions of "healing," "enjoyment," "health," "vitality;" and a good nutritive system is shown in the regions of "eating," "digestion," "warmth," and general fulness of the lower face. These temperaments may all be discovered in the hand also. For twenty years the author has found the hand a ready means of ascertaining temperament. Chirognomy is no new science.

The value of such a knowledge of the temperaments as any sensible man or woman can acquire by reading such a work as this, and noticing people about, cannot be over-estimated. A father who studies the ways and habits of his children cannot fail to see what temperaments they are developing. There is active Tom, with his thin, sharp face, his constant movement, his indifference to food and rest. That boy is developing the mental and vascular temperaments at the expense of the nutritive. If you mean to keep Tom you will have to send him to bed soon, and encourage him to eat and drink plenty and be a little more passive.

Lazy Dick there, with his fat, red cheeks, never misses a meal; and if you send him on an errand he comes back some time. When you give him any work to do he takes so long about it that you prefer to do it yourself. His thick, round limbs and full paunch tell of plenty of the nutritive temperament. He will take a double help from each dish and never cry, "Hold! enough." His treatment must be opposite of that which you apply to active Tom. You may drive Dick, may work him as hard as you like either bodily or mentally, you cannot overwork him and drive him to an early grave; he will take care of that. Charley will pore over books from morning till night if you will let him. He is of the mental temperament, like Cardinal Manning. His brain is too big for his body. You have to get him out of doors and make him work and play and breathe freely. You have also to encourage in him an appetite, something like that naturally owned by Lazy Dick. In this way you will prevent tempera-

ments from running to extremes. You will not make people all alike—that would be a calamity—but will make them more harmonious. A man is only as strong as his weakest temperament.

THE MENTAL TEMPERAMENT is the one in which the brain is the most prominent. When it leads the features are fine; the face pyraform; the limbs small and flexible; the eyes free moving, bright, and generally prominent; the hair fine, soft, and generally abundant—it may be of any colour, but is frequently light. The cheeks are thin, the forehead high and large, and there is a marked absence of fleshiness, and no tendency to abdominal fulness.

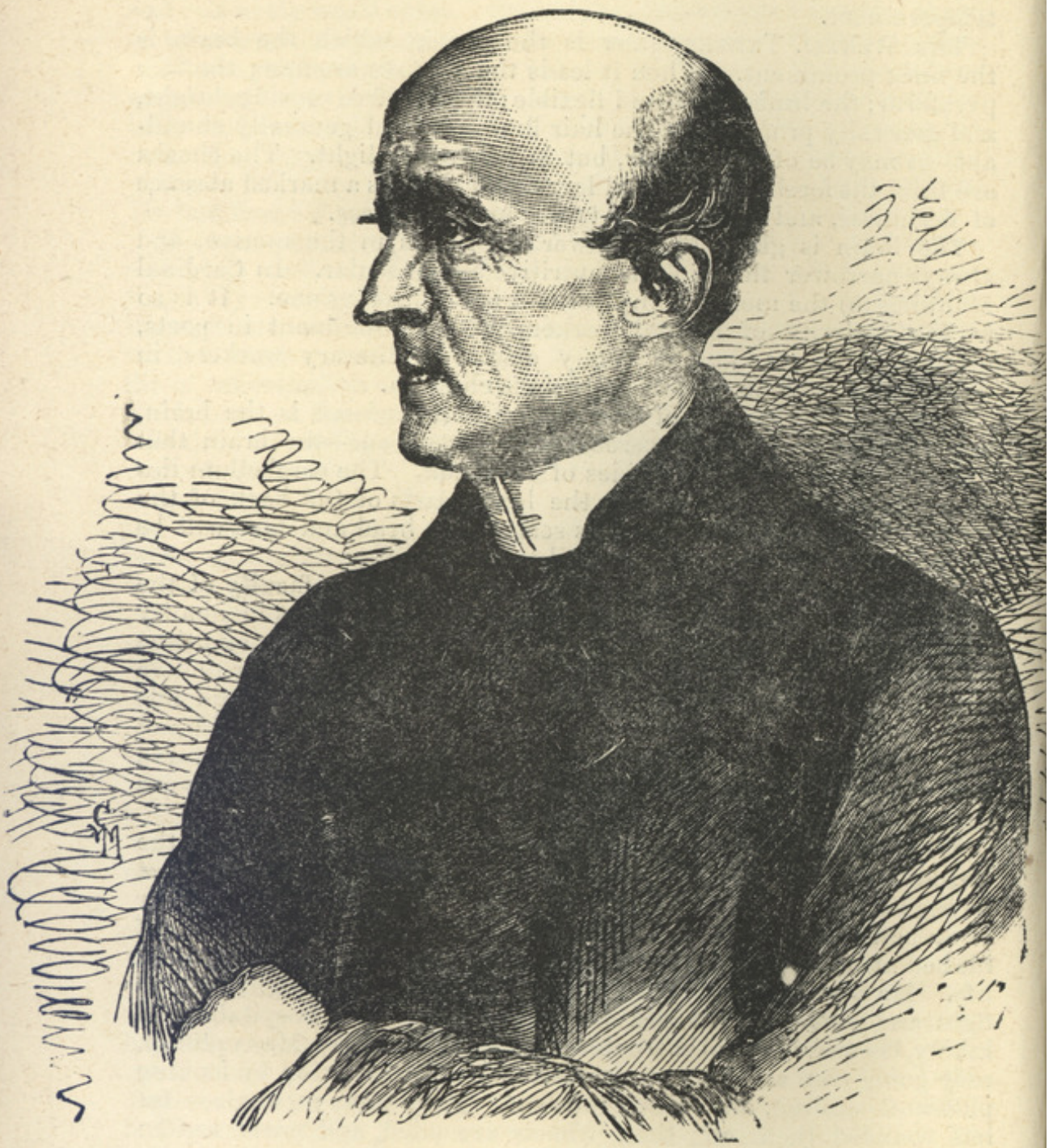
The brain is generally narrower than it is in the motive, and always narrower than in the nutritive and vascular. In Cardinal Manning (5) the mental temperament is the leading one. It is so in the majority of mental workers. It is prominent in poets, musicians, artists, and in many classes of literary workers, in imaginative persons, and in precocious children.

The presiding genius of the mental temperament is the brain, and more particularly the cerebrum or large brain—the brain that fills up the front, top, and sides of the head. The cerebellum lies between the ears, and fills up the lower parts of the back of the head. Signs of temperament as seen in the head and face will be incidentally mentioned in future chapters.

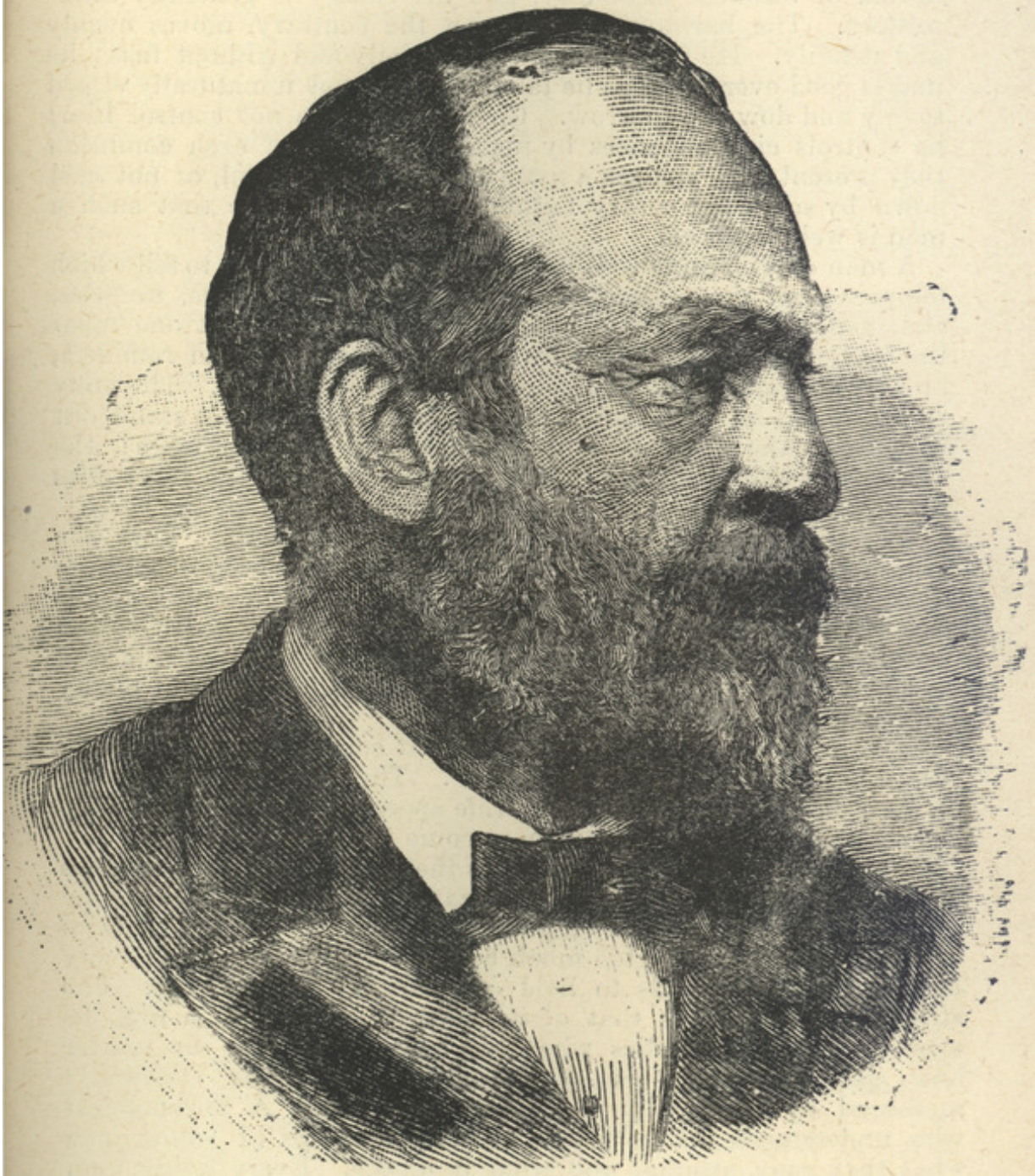
TEMPERAMENT IS A CONDITION THAT affects every faculty of the mind. A large and fine brain—fine in form as well as in quality—if found on a pulpy and heavy man, would not display one tithe of the activity that it would on one in whom the mental or motive temperaments took the lead. Large benevolence in a fat and idle man would mean a genial and kindly disposition; it would not lead to effort and self-sacrifice. Some people are good-natured and compliant because too lazy to make any fuss, and others are moral because too idle to sin.

When the nutritive and vascular systems are prominent, the virtues are apt to be negative. The man does not do this or that wrong because he does not like the trouble. He cannot be a burglar or an active criminal; for that kind of crime would take him out of his bed at improper hours, and be a worrying and wearying kind of life. He does not quarrel with anyone, because he might have to fight, and would run the risk of getting hurt. He is hospitable and kindly, because it would be troublesome to be otherwise. Many plump, easy-going men and women get quite a good reputation by looking pleasant, smiling, and being tolerant. They have no angles—fat has rounded them off; their wheels are oiled, and never creak; they use the oiled feather to their hinges.

THE BEST TEMPERAMENTS ARE THE MOST HARMONIOUS.—General Garfield (6) is a capital specimen of the well-balanced temperament. He rose to his high position by force of character. He does not appear to have been a particularly brilliant man; but he had the all-round completeness of character that goes with harmony of temperaments. This is much better than genius. A genius has



5.—CARDINAL MANNING.



6.—PRESIDENT GARFIELD.

too much of something or other, and too little of some other quality quite as useful. He is frequently short of the governing qualities. Sometimes his morality is an unknown quantity. He is often devoid of business capability, and his energy is generally intermittent. The harmonious man, on the contrary, moves evenly and steadily. He rises in the world quietly and without fuss; he makes good every step as he takes it; he is not unnaturally elated to-day and down to-morrow. Circumstances do not control him; he controls circumstances by making the best of each condition they present. If you see a man uniformly successful, or not cast down by some temporary failure, you may be sure that such a man is well balanced.

A man or woman is well harmonised if it is difficult to tell which temperament preponderates. In such there are bones, muscles, abdomen, chest, and brain, and yet you cannot see that one takes the lead of the rest. The whole figure is compact and rounded; no part appears to attract attention more than the rest. The bony structure has no undue prominence; the muscles do not stand out in bosses; the chest is large enough, but not too large; the abdomen is neither drawn in nor bulged out; and the head does not strike you as being either too large or too small for the body.

Well-balanced people may be either large or small. They are generally neither. The world's greatest men have been of medium size. Garfield (6) was a little over medium size. A study of his face will show harmony. The lower face tells of good nutritive and vascular qualities; the middle face tells of good working and business energies; and the upper face, the forehead, tells of plenty of mental power and of ripe judgment.

Such men have every kind of power at command; they usually attain to good positions and live long. They can be seen any day in their offices and warehouses. Life appears to be easy and prosperous for them; they always have some force in reserve.

The Harmonious Temperament is the one that nature is always trying to produce. Individual life cannot be well maintained by persons who have an abnormal development of any one class of organs. Too much fat, too much bone, even too much brain—any lack of harmony, tends to hold one back in the life race. The strength of a chain is that of its weakest link. Let a man be ever so muscular he dies when his heart gives out; no matter how good his brain is the thinking capacity is eventually measured by his ability to digest his dinner. A phrenologist who understands his work has to tell thousands of young men what they may attempt and what is unsafe. Every living man or woman profits by learning what is his or her weakest temperament, and setting to work to add strength to that temperament. In childhood the modification of temperaments is easy, and it is possible, to a greater or less extent, all our lives. If we fail to find out and strengthen the weak part any testing will find it out for us Life is full of such struggles, and the men who turn out weak go to the wall. This means that well-balanced people are more likely than

the rest to survive in the long run, and that ill-balanced ones must take a second place, and eventually be civilised off the earth.

Nature is ever trying to produce harmony of temperaments by the well-recognised process of marital selection.

In selecting husbands and wives we are attracted by one of two features :—1. Harmony, beauty, and physical perfections; 2. Power in some other direction which we lack and admire in another. The primal attraction is, of course, the great difference of sex. Even in friendships there is something of attraction for opposites. A weak man will seek for the companionship of a strong one; a high intelligence finds his friends in lower ranks of intellect. Like qualities sometimes lead to friendship, but unlike ones far more frequently.

An attraction towards opposite and different qualities tends to produce harmony of temperament—if not in this generation, at least in the next. For fuller treatment of the question of temperament in marriage, see "Husbands: How to Select Them; How to Manage Them; How to Keep Them," by the same author. All persons ought to study temperament as shown in themselves and their children, in order that they may bring to bear such modifying influences as are available.

CHAPTER IV.

QUALITY AND ACTIVITY.

"For often fineness compensated size."—*Tennyson.*

THERE ARE FINE MEN AND COARSE ONES.—In some men everything is hard, rough, and coarse. The skin is rough; the features just chopped out of the hard material of the face; the hands knuckley, rough, strong, stift, and evidently unfit for fine manipulations. The voice growls harshly. The movements are heavy and without grace. The hair is bristly, and each one, when cut short, asserts its individual existence by its erectness; the whole head is like a pretty stiff brush. These are men of low quality.

In others everything is reversed. All is pliant, fine, smooth, well finished. The skin is thin, and glows with every change of feeling, for the blood gets to the surface easily; the features are finely chiselled, and you can see just where one begins and the other ends; the hands are fine and very flexible, you can see that they are fitted for delicate manipulations; the voice is musical and clear; every movement is easy and graceful; the hair is as soft as so much silk, and lies in delicate ringlets on and around the head. Fine quality may be found accompanying any size or any temperament. It is most frequently found in conjunction with the mental and the vital-mental temperaments. The bony and muscular temperaments are generally the coarser ones.

IS ANYTHING PERTAINING TO CHARACTER REVEALED HERE? Yes. Fine hair means fine bones and muscles and a sensitive and delicate nervous structure; an organisation that will enjoy and

suffer more than the coarse and the common. The coarser man can enjoy a life of hardships, labours, and privations that the finer could not endure. Rugged coarseness smooths the way for delicate fineness that comes after, and develops art, music, and beauty. These two classes of people have each their uses, but one could not change places with the other.

To one the pains and pleasures of life are very tangible and real, and their causes are perceptible. The other has quivering nerves that vibrate with the slightest impression from within or without. If the coarser nature is well fed, clothed, and its animal wants are attended to, it is comfortable and happy; the other needs sympathy, tenderness, beauty, poetry, and art—needs to have the soul's aspirations gratified. It lives not by bread alone. The extremely fine are apt to have day-dreams; are inclined to be æsthetic; to shut themselves away from the wear, tear, and worry of the work-a-day world and its sins, sufferings, and privations; and to build up an ideal world for themselves. They may almost

"Die of a rose in aromatic pain."

Caligula (7) is a sample of the coarse in its worst form—the vicious and sensual. If a coarse man is also a bad man he will be guilty of the grossest forms of vice and sensualism. A low mode of life tends to degradation of quality, and to the building up of the lower part of each organ of the body. Gross living makes the cheeks hang; it fills out the lower viscera; it degrades and drags down the form at every point. It lowers and enlarges the cerebellum; fills out the lower ear-lobes and lowers the ear itself in relationship to the eye; makes the man approach the hippopotamus in his form. Caligula, in youth, had fine features, and was well shapen. The picture here given represents what he was a little before his crimes led to his assassination. If a man is too fine he can harden himself by taking more interest in every-day life and hard work; if he is too coarse he can become finer by changing his habits and pursuits—by trying to be less boorish—by cultivating pure habits and feelings—by exercising the moral and religious feelings—by improving intellect and exercising the higher faculties generally.

7.—CALIGULA.

BETWEEN THE EXTREMELY FINE AND ITS OPPOSITE there are all shades of quality. These are approximately estimated in the marking of the phrenological register. In considering character and talents it is necessary to pay particular attention to this as a basic condition. It affects every faculty. A man of fine quality will differ in thought, feeling, modes of worship, emotions, affections, artistic conceptions, and in all ways from a coarse one. A coarse man wants his religion hot and strong. A brass band is scarcely enough to move him. Loud shoutings and gesticulations are to him natural and necessary modes of expression.

His conscience can only be reached by material appeals. He wants a blazing hell, an angry Deity, a pleasant place of abode as a reward. He spiritualises nothing. A man of finer fibre shrinks from all this noise and blare, and worships in subdued murmurs. The two classes quarrel about their respective modes of worship, and call each other "Ranters" or "Ritualists," according to their style. Why do so? Both may be in earnest; both may be striving after truth; both are worshipping the same Divinity. The difference may be in temperament and quality more than in spirit. We have to learn to make allowance for one another. We must not blame a coarse man for speaking plainly and directly, and giving direct and vigorous utterance to his thought and feeling. Such is his nature.

A coarse man will exercise his benevolence by direct giving, and inflict pain by the manner of the act; a fine one will press a trifling loan with delicacy and tact, leaving no sting and no humiliation. Both are actuated by the same spirit, and it is only fair to judge them by the spirit of the action—the motive rather than the manner.

PRONENESS TO ACTIVITY IS INDICATED BY SHARPNESS of outline and feature. A sharp, thin nose and prominent features tell of activity. Where the features are sunk into the face, and seem to run into one another, do not expect a great degree of activity. Illustrations 4 and 5 show great activity, while 2 and 7, especially the latter, show the opposite. 3 and 6 are reasonably active; their activity will be sufficient to push forward their enterprises and keep them in health, but is not the kind that ruins their constitutions.

In some the nose runs into the cheeks, and the face is flat and broad, and the features small in proportion to the face. The eye is dull and slow-moving, and has but little expression, and the forehead is bulging. Such people are slow. Many people expect much from their children because they have large foreheads; and some phrenologists, a little short of experience and knowledge, are apt to promise intellectual pre-eminence to such children, and to lead parents into making undue and useless efforts to make their big-brained boys into lawyers and literary and professional workers. This is the result of not taking all conditions into consideration.

Slow boys may come to the front, but, as a rule, they are late in doing so. Parents ought to be very sure that a slow boy has

talent that will develop some time, before they persist in keeping him at school for the purpose of making a capable scholar of him. These slow people are often thoughtful and good-natured. Quicker and finer men and women are more excitable and are more irritable. Sir John Hall (8), a New Zealand statesman, and ex-Premier of that colony, presents a picture of fineness and activity. The artist has managed to blunt his nose a little, and thereby has toned down the whole face.

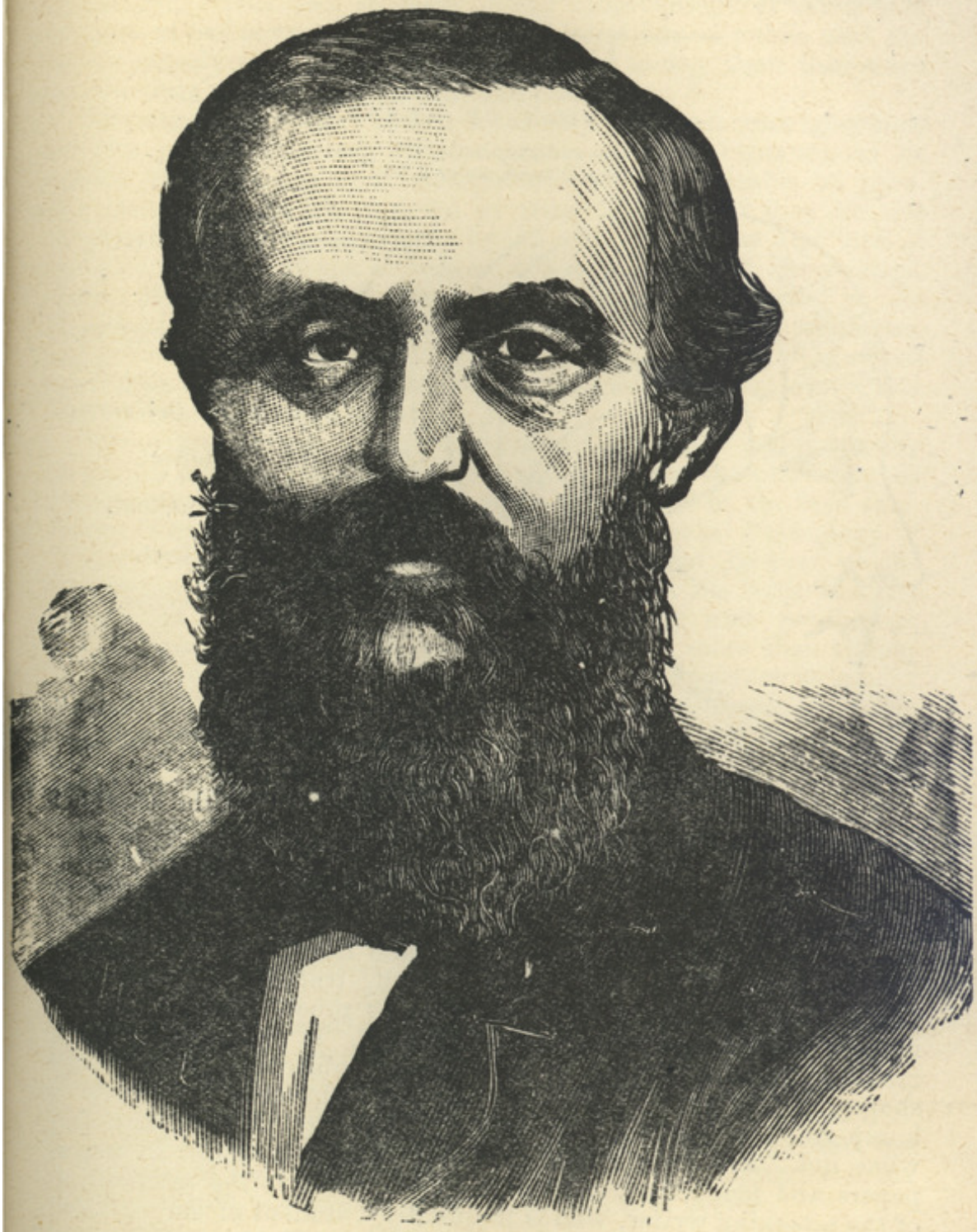
Activity is shown also in length and slenderness of form and feature. Mere sharpness and thinness, when not accompanied by length, indicate excitability and intensity of nerve action, rather than the ease of movement of activity. The fussiness of excitability, when not controlled by activity and mental promptness, is sometimes laughable. Fussy people are apt to get panic-stricken in the presence of danger. The most active forms are those that have bone and muscle enough to give them freedom of movement, together with nerve enough to give quickness.

Short and Stocky Structures Give the Idea of Sturdiness and strength. The strongest form in the universe is the sphere. When the sphere is beaten into a cylinder it is less capable of resistance along certain lines, and when the cylinder becomes a rod it is weaker still. In gaining length and slenderness it has lost in resistance.

Speed and strength are in inverse ratio one to the other. Given two arms of equal strength, the shorter one will hold at arm's length a greater weight, while the longer one will move its weight —a lighter one in proportion to its length—through a greater arc of space in the same time. These are mathematical certainties, and mathematical laws control all movements and all masses everywhere.

Hence solidity and stockiness of form indicates strength, while length indicates speed and activity. Still we cannot go far before compensating clauses and limitations begin to operate. When the limbs get too long the weight gets too far from the power, and time is lost in transmitting the force. Therefore, while length is a sign of activity, the extremely tall and slender are not the most active. They have passed the point where length is an advantage. Giants are almost always ungainly and slow. In fables and folk-lore giants are sometimes strong and cruel; but they are rarely, if ever, quick of movement, brilliant, or clever. They fall a prey to the simplest devices of the cunning ones who slay them. Harmony of parts is the great essential. Thickness and shortness become podginess and inefficiency when too apparent.

The truth of these remarks may be proved by the study of mechanics, or by a visit to a locomotive factory. Where a given amount of steam has to drive an express engine at high rate, the piston rods are long, and the driving wheels of great diameter; where the same steam has to drive a heavy goods engine slowly, the rods are shorter, the wheels of less diameter, and all else proportionate. We have now learned something of the study of forms



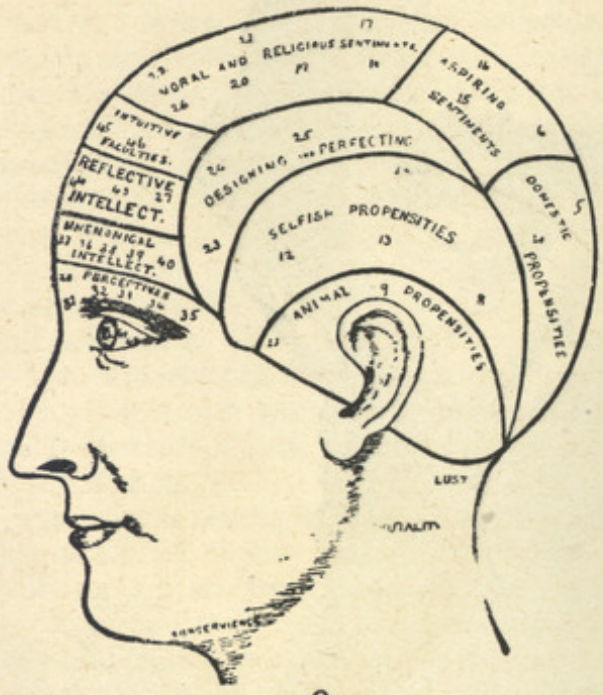
8.—SIR JOHN HALL.

as a whole, of animal forms and their human prototypes, of temperaments, of quality, activity, excitability. We will now proceed to details, beginning with the most important one—the head.

CHAPTER V.

A STUDY OF HEADS.

"Large head, little wit,
Small head, ne'er a bit."



(1) Animal Propensities.
(2) Selfish Propensities.
(3) Domestic and Social Propensities.
(4) Designing and Perfecting.
(5) Perceptive Intellect.
(6) Mnemonical Intellect.
(7) Reasoning Intellect.
(8) Aspiring Sentiments.
(9) Intuitive Intellect.
(10) Moral and Religious Sentiments.

9.

No student of Human Science needs to be told that the study of heads involves the study of brains, which is Phrenology. Hence the man who studies brains is in a sense a phrenologist, even though he pretends that there is no such thing as a science of Phrenology. The name of the science comes from the Greek equivalents of brain and word—Phren and Logus.

In spite of all that has been done by teachers, writers, and lecturers on this science there yet remains much misapprehension in the public mind regarding Phrenology. It exists both in lay minds and those that ought to be better informed. It takes all shapes, and in turn makes the student of Phrenology figure as a bump-groping charlatan, an atheist, a fatalist, a materialist, and what not. From time to time Phrenology is attacked in newspapers and magazines, and utterly demolished to the satisfaction of the attacking writer, who is frequently a student of surgery and medicine, fresh from a course of clinical lectures, and not yet trusted with the lives and limbs of patients. Strangely enough, Phrenology seems to require a vast amount of killing. Within a short period it has been shot by the London *Graphic* and pin-pricked by a Melbourne morning paper, and still it is alive. A

small work on Human Science, written by the present writer, has sold at the rate of five hundred copies a month ever since it was published. This, too, in spite of the disadvantage of being sold mostly at one store. Phrenological descriptions of public men are more eagerly read in all parts of the world to-day than they were in the time of Gall, Spurzheim, and Combe.

The attacking writers almost invariably display a crass ignorance of the subject attacked. They usually build A PHRENOLOGY OF THEIR OWN—a thing weak enough, and not recognisable by phrenologists—and knock it down at their leisure. If they did not knock it down it would tumble by its own clumsiness and lack of cohesion. They attack at best an old dead image of Phrenology, about as much like the science, as practised, as an eggshell is like the chick hatched from it. As well attack the medicine of barber surgeons and apothecaries, the medicine and surgery of three centuries ago, and think that the Royal College of Surgeons would thereby come to grief.

These pot-boiling writers generally air their ignorance by dragging up theories that have been abandoned by the phrenologists themselves some forty or fifty years ago. One of the best text-books of modern phrenology is Carpenter's "Mental Physiology."* The writer regards himself as an anti-phrenologist; he even speaks somewhat disparagingly of the phrenologists in his book, and yet he advocates a system of mental philosophy and psychology exactly identical with what we have taught for more than twenty years. This is not a scientific work. Carpenter cannot be quoted here. He is worthy of all respect, and his work will live. No one will rank him amongst the magazine critics just mentioned—men who usually show themselves (1) ignorant of phrenology itself; (2) ignorant of its most common literature.

Space and time will not allow more than a passing mention of these writers. Facts refute them. Phrenology is livelier and stronger to-day than ever. It has more teachers, more writers, more readers; a higher place in general literature. Its terms have become the nomenclature of the mental faculties all the world over; its principles are expounded in thousands of pulpits and on thousands of platforms. Novelists make use of it in explaining their characters; poets in touching human sympathies; physicians in diagnosis of cases; teachers in instructing the young; merchants and bankers in selecting their assistants. In short, it has permeated through every stratum of society, and this, too, in spite of the crudeness of many of its teachers and the prevalance of silly ideas regarding good and evil bumps, and the fatalism which uneducated persons suppose it to favour.

NO PHRENOLOGIST OF STANDING endorses the bump theory. To talk about bumps on the skull as indicative of talents and traits of character is to air ignorance, or vulgarity, or a mixture of both. Phrenologists study the shape of the head; they find out the

* W. B. Carpenter. Kegan, Paul, Trench and Co. 737 pp. 12s. 6d.

relative quantity of brain in certain positions. Quality and activity have been discovered by studies alluded to in previous chapters. The phrenological method of study is the natural one. At the head of this chapter (cut 9) the natural development of brain is shown pretty plainly, and for the first time. That illustration is entirely new, and has been drawn by the writer especially for this work. It shows growth upward from spinal centres to the top of the head. The region of brain between the ears is common to men and animals, and is named "animal propensities." Built upon this we have the "selfish propensities," still common to men and animals, but in men this group includes the business qualities and energies that save means and provide for the activity of the "designing and perfecting" group. This, again, is not an entirely human group of faculties. Bees, wasps, spiders, birds, beavers, moles, ants, and many other creatures design and construct things that men can at best but poorly imitate. Even in size his largest buildings, cities, and pyramids appear small beside the coral islands built by myriads of aquatic workers in Southern seas.

Behind these, filling out the back of the head, is the region of brain devoted to the "social and domestic propensities." This, again, is common to men and animals. The hen who gathers its chickens under its wings is much more a mother than the woman who abandons her child to death or to the mercy of strangers. Above all these, in the posterior coronal region, we have the "aspiring sentiment," for the first time so called. These are mostly human, although many animals are sensitive to praise and censure, and have something akin to vanity and pride in their structure.

In the Forehead there are Four Stories, so to speak. The lowest of these is "perceptive intellect." This is common to man and animals. In direct observation animals are frequently superior to man. Of measures, qualities, and values they are doubtless ignorant, but of things themselves they frequently have keener perceptions. The keener perceptives of dogs are frequently employed to aid men in hunting, tracing fugitives, &c.

The second story, "mnemonical intellect," is also common. Most animals and birds, and many insects, remember places; many of them remember seasons, if not actual dates. Pigeons travel home from long distances; bees make the known "bee line;" birds make for their own nests. People speak of distances "as the crow flies." Dogs, cats, horses can find their way about better than men under some circumstances. Men turn animal faculties to human use. A sea captain, engaged in intercolonial trade, has a house in the N.Z. bush. When he calls at a certain port he finds his horse waiting at a stable. That horse carries him to his bush home. If compelled to travel at night the captain is apt to get off the track. Not so his horse. In any case of doubt the captain drops the bridle on the horse's neck, and lets it pick the way. This is an instance of human and animal action of a

faculty; the animal may be superior to the man so long as its faculty acts simply and directly. The horse can be trained to find its bush road, but it could never be trained to steer a ship. Your dog will remember the smell of your person and the sound of your voice. It could not remember the latter if it had not tune; but it has not tune enough to remember either a psalm tune or a movement in an opera.

The third story, "reflective intellect," is almost entirely human. It is possible to show that sagacious animals have some rudiments of the reasoning faculties; indeed, both in moral conduct and what appears to be rational action animals behave better than the criminals and idiots of our own species.

"Intuitive intellect," the crowning portion of the brow, is barely present in many men. It is the reverse of the "perceptive intellect." One is fed from the material side of us, from below; the other from the spiritual side, from above. If ideas can flow into the human mind from superhuman sources they flow in here.

In Geo. Combe (10), the great phrenologist, and author of "Constitution of Man," we have a good example of "intuitive intellect," and of the "moral and religious sentiments"—the region of brain farthest removed from the "animal propensities," and least necessary for our mere animal well-being. The brain, judged by the position of phrenological regions, is an evolution by growth upward and forward and upward and backward. When animals begin to care for their young they cease to be entirely selfish. A hungry sparrow will carry a grub in its bill to feed its young. The sparrow takes a step towards humanity, or divinity if you will, when its love for its little ones sends it hurrying about to bring them food.

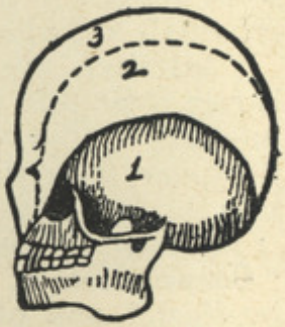
Fig. 9 gives the correct idea—that of a series of brains growing one upon another. A study of the comparative anatomy of brains shows a gradual evolution from a ganglionic knot of nerve matter to the complex brain of the higher mammals and man. The Chimpanzee has a small brain and a large one—Cerebellum and Cerebrum. It includes regions 1, 2, 3, 5, and part of Nos. 6 and 8. See head of chapter.

Fig. 11 is a comparison of three skulls—(1) that of an intelligent Chimpanzee; (2) that of a man of average ability; (3) that of a highly moral and intelligent man. There is room for any number of variations of form between these lines. Some idiots have brains but little superior to that of the Chimpanzee. An idiot has been known to have a brain weighing only ten ounces. The average brain of the full-grown Englishman is 48 ounces. Scotch and German brains average a little higher; those of Southern Europe lower Some idiots have very large heads. In such cases the brain is usually diseased.

NEVER JUDGE EITHER CHILD OR ADULT by size of head alone. A big head may be like an uncultivated swamp. Its only product may be malaria. A boy phrenologically pronounced clever was brought to the writer some time ago. He had a wide, square

forehead, and a large brain. A moment's study of the case served to show that the upper half of the brain was barely alive; that the boy was all but devoid of intelligence; that education of any kind was scarce possible, and that death might be expected any day. In six months the boy was dead. Had he lived he would have been a perfectly useless imbecile.

Little is gained by the study of heads with knife and scalpel. A number of vivisectionists have of late been trying to discover a phrenology of their own by removing portions of the skull and applying electrodes to the naked brain, and watching what movements result from touching certain parts. So far as they have gone the experiments of Hitzig and Fritsch, Ecker and Ferrier, have proved the statements of the phrenologists. They have discovered by their cruel experiments that the region of brain about the ears is somehow connected with animal movements, and have deduced, as can be proved by their own books and illustrations, that the upper and front brain is used for the manifestation of the moral and intellectual faculties. They have begun to think what we have long known.



11.

They could not very well MAKE EXPERIMENTS ON HUMAN BEINGS, for human subjects are not likely to submit themselves as martyrs of science. The highest animals are devoid of the purely human faculties, and also of the brain centres through which these become conscious. Even in surgical cases, where naked human brains are exposed, many difficulties arise; one is that the brain cannot act under abnormal conditions. The pressure caused by a clot of blood, a brain tumor, an indented skull-plate, causes unconsciousness; and if an electrode could stimulate a centre—say that of Reason—how would reason express its conclusions without language and the vocal powers? or draw them without facts supplied by the mnemonical or perceptive centres? In short, the proper activity of any faculty can only be attained as a result of wakefulness and health of all faculties. The incoherence of dreams is caused by partial wakefulness; that of insanity by derangement of portions of brain. At best electrodes could only make a man act as if half asleep or half insane.

Therefore, we cannot trust much to the results gained by the vivisectionist's mode of investigation. Their whole system of investigation is open to question. It is far more uncertain than the phrenological one, for (*a*) it renders the conditions abnormal by its cuttings and electrodes; (*b*) it stimulates from outside instead of inside; (*c*) it arouses single centres, although it is known that centres do not act singly; (*d*) it concludes that, because a movement of certain muscles is caused by the application of an electrode to a certain centre, and that such movement is not made when that centre is removed, such centre has no business to perform but that of moving that muscle. As well might we suppose that

because the hand of a sleeping man will grasp when something is put in it, and will not grasp after being cut off, that the only purpose of the hand is grasping.

10.—GEO. COMBE.

PHRENOLOGY (*a*) STUDIES NORMAL CONDITIONS; (*b*) studies faculties as exhibited in the action and passion of every-day life, and sees that intensity and power in certain directions are accompanied by certain forms of brain; (*c*) analyses motives and finds in action a resultant of several forces working in various directions; (*d*) sees that any faculty can have the direction and intensity of action, though not the kind of action modified by each or all of the other faculties. For instance, constructiveness always constructs. It builds cities, makes garments, roads, bridges, railways, steamships, to aid civilisation and travel. It makes pens and paper for the writer, instruments for the musician, and, anon, cannon, rifles, swords, and bayonets for destructive warfare. The phrenological method is natural, and free from cruelty; that of the vivisectionist is unnatural and cruel. We give the latter credit for honesty of intention, and thank him for what he has done in anatomical and histological research. We hope that he may make further discoveries by the study of pathological cases and by dissection. In these lines the phrenologists have been foremost ever since the days of Dr. Gall. They have ever been willing to give and receive suggestions, and only claim for themselves and their modes of investigation the freedom and fair play they give to others.

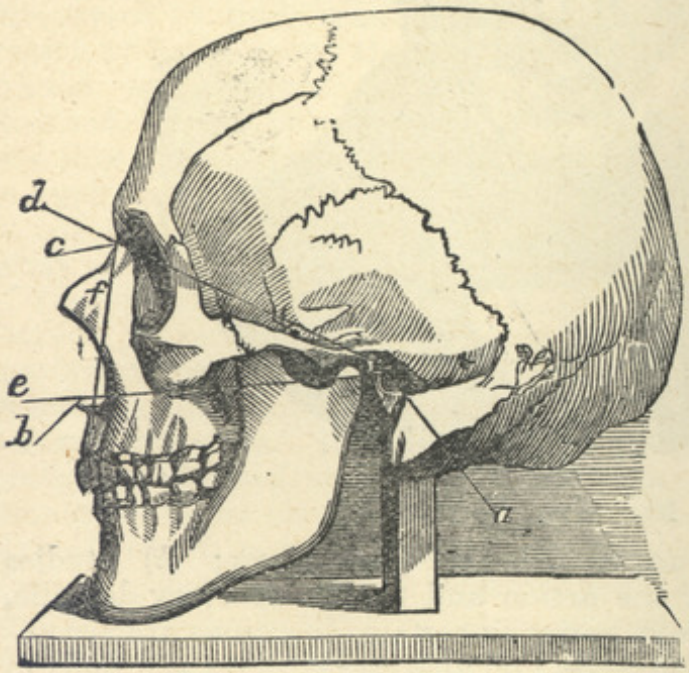
In many cases the discoveries of anatomists and physiologists have been anticipated by the phrenologists. As a case in point, Dr. Luys has found out that the *corpus callosum* is composed of fibres, which connect homogeneous portions of the two hemispheres of the brain. The phrenologists have known this since the days of Dr. Gall.

CHAPTER VI.

SKULLS.

"Now get you to my lady's chamber, and tell her, let her paint an inch thick, to this favour she must come; make her laugh at that."

THE majority of people care little about skulls. Some shudder when they see them, perhaps not thinking for the moment that their own brains are packed in one of these wonderful and beautiful boxes of living bone. Oliver W. Holmes speaks of the brain as a seventy-years' clock, which Nature winds up once, and then gives the key to the Angel of the Resurrection. We can only get at the works of this clock indirectly. We can make it go now a little faster, now a little slower, while the seventy years, a little more or less, are beaten out; but all meddling with the rate of this horologue is poor work, and in the long run does not pay. Alcohol and opium, the fierce excitements of gambling and fast living—the brain avenges itself upon us for all these things.



12.—A GOOD SKULL.

THE SKULL IS A WONDERFUL STRUCTURE. It is evidently intended to protect something of supreme importance. The stomach and abdominal viscera are important parts of the body; we could not live long without them. But they are not protected with a bony case. The heart and lungs are more important; life ceases instantly if these are seriously injured. Still they are only partly protected with bone—a sternum in front, a pair of shoulder blades behind, and the ribs—a kind of cage in all—for protection of these organs. The brain, so carefully protected, must be more valuable still; the cloven sphere that it enshrines must be of more importance than the heart. And so it is; for the heart ceases to beat just as soon as the brain ceases to send its messages com-

manding it so to do. Of all organs in the body the brain is crowned king. Other organs hold a tributary kingship, each in its own domain, but the brain is emperor, and controls the whole.

"Mark the cloven sphere that holds
All thought in its mysterious folds,
That feels sensation's faintest thrill,
And flashes forth the sovereign will;
Think on the stormy world that dwells
Locked in its dim and clustering cells!
The lightening gleams of power it sheds
Along its hollow, glassy threads."—*Holmes.*

THE SKULL IS MOULDED UPON THE BRAIN. It is a certain shape and size because the brain inside the skull is of that shape and size. Says Louis Figuier, the great French naturalist:—"The brain is moulded by the soul into conformity with its proper aptitudes, its required faculties. Then the bony covering of the skull, which moulds itself upon the cerebral substance within its cavity, reproduces and gives expression to our predominant faculties." . . . . "When Gall's theory is applied to animals the evidences in its favour are astonishing. In the case of man, facts are almost always confirmatory of the theory. It is certain that the skull of an assassin does exhibit the abnormal developments indicated by Gall, and that, according to the doctrine of the German anatomist, the sentiments of affection, love, cupidity, discernment, etc., may be recognised externally by the form of the skull. It rarely happens that the phrenologist, on examining the skull of a Troppman or a Papavoine, fails to trace the hideous indications of evil passions and brutality."

Opponents of Phrenology think they score a point by speaking of thickenings of the skull as presenting an obstacle to the phrenologist. These might, in some instances, puzzle a bump-groper—a man who feels over the surface of the head for little elevations and depressions of skull, and from these pretends to draw certain deductions, which he gives forth in oracular sentences that may be made to mean anything. The true phrenologist is never puzzled by these. He knows where they are, and has means of finding out any extra prominence of bony process. He draws deductions from size of brain from certain centres, its depth and form.

Fig. 12 is that of a well-formed Caucasian skull, such as can only be found amongst highly-civilised people. A comparison of skulls of different races, and of different types of character in the same race, shows that the differences of form are far greater than could be accounted for by differences in thickness of skull, and by any number of excrescences on skull surface. The phrenologist sees in an instant who has a thick skull and who a thin one.

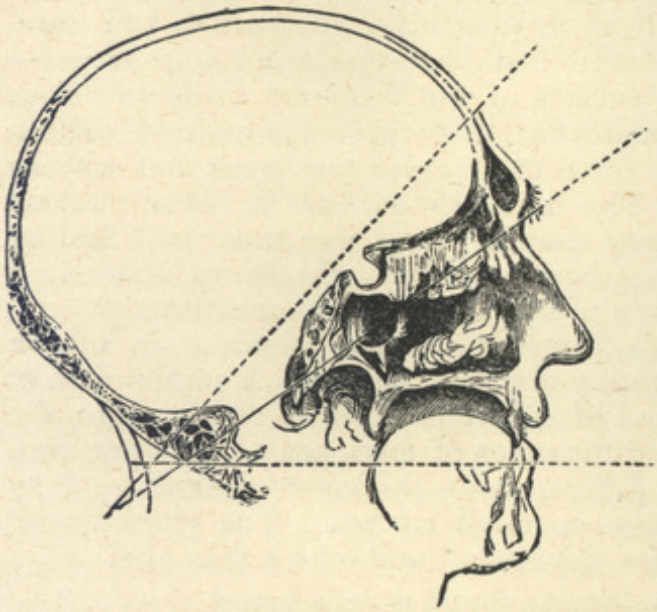
"The blow that scarce would move a horse
Would kill a sound divine."

A thick skull is an advantage under some circumstances. "Numb-skull," "Thick-head," "Block-head" are terms used to denote stupidity and intellectual dulness. A thick-skulled man,

however, is not of necessity a dunce. A man in whom the bony system is prominent will have a thick skull, and his mental labours will be performed slowly, but they are not of necessity poor. Many great men have written slowly. Macaulay was a slow writer, and so was Darwin; but who will have the temerity to say that either of these men did poor mental work? Books that live have frequently been written by men who gained in turn each of the above appellations. The mental temperament is often thin-skulled.

THE THICKNESS OF THE SKULL is pretty uniform, and its thicker and thinner places are well known. The Designer of the skull has provided a thick portion of skull at the back, and one on each side, and a hollow chamber at the root of the nose. These are protections in part, and they serve other purposes. The amateur gropers sometimes mistake the mastoid process for "executiveness," and the occipitus spinalis for "love of children," and an extra fulness of the frontal sinus for "object" and "locality." The skull is thin under the zygomatic arch and the temporal muscles. It is sometimes thinned by brain diseases that cause monomania. Victims of Satyrasis and Nymphomania have skulls thinned in the region of "amativeness." Something can be learned regarding the kind of life a man has lived by putting a candle in his skull. The bone is thinnest in the regions of greatest activity. Even during life excessive activity of portions of the brain may be discovered by heat and other symptoms. The form of skull does something towards telling the kind of mania towards which each subject may lean. A person with narrow head is not likely to become a kleptomaniac.

The general coincidence of internal and external skull plates is shown in Fig. 13. It need scarcely be said that the brain fills up the whole cavity of the skull. We cannot shake our brains up and rattle them about. A severe blow on the head indents the skull and produces unconsciousness. A concussion, caused by a fall or shock, produces the same effect. Until the normal condition is restored consciousness cannot be regained.



13.—SECTION OF SKULL.

A seaman, while being chased by a middy on board one of our old wooden men-of-war, fell to the deck, and was seriously injured on the head. He could take food, and so was brought to England alive, but unconscious, and put in one of the London hospitals. Sir

Astley Cooper examined him, and performed the operation of trepanning. As soon as the piece of bone was raised from the man's brain he looked around excitedly, saying: "Where is he?" He had regained consciousness just where he had lost it; he was again in the rigging from whence he had fallen three months before. All the time after was a blank; he had not even remembered striking the deck Such experiences are very common. It is a merciful provision of Nature that creatures suddenly killed never know what has hurt them.

HERE WE HAVE FOUR SKULLS. The first is that of the polecat, called by our American cousins the skunk (see D, Fig. 14); the second (C) is that of the domestic cat; the third (B) the Chimpanzee; and the fourth (A) is an average human skull. These four are actually sections drawn to scale. The point (G) is the opening of the ear—a point common to the four—and the development upward and forward must remind the reader of the super-position of brain on brain—the higher on the lower—shown in Illustration 9 heading the last chapter. Evidently the superior creature has a superior form of skull to make room for its larger and more complex brain.

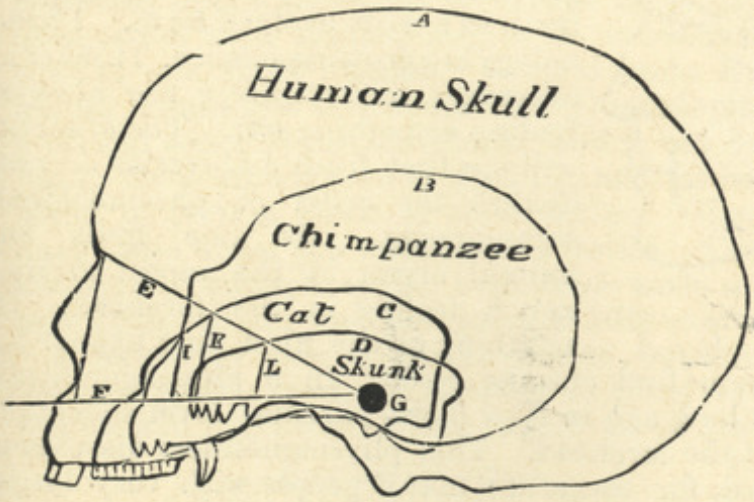


FIG. 14.

The few fossil skulls that have been found are, as a rule, low in development, but distinctly human. There are heads walking up and down our streets to-day quite as poor as the Neanderthal and Borrowly skulls. Hitherto, there has been found no trace of the "missing link," the ancestor common to monkeys and men. That man has undergone, and is undergoing, a process of evolution cannot reasonably be doubted, but, so far, that evolution appears to have been from a lower human to a higher human—from an animal human to a full-orb'd Divine Human, the perfect work of creation—and not from some lower animal into a human.

CHAPTER VII.

PHRENOLOGICAL READINGS.

"So phrenology may be justly conceded the grand merit of having forced the inductive method of inquiry into mental philosophy, and thus laid the permanent foundations of a true mental science."—Encyclopedia Britannica, 8th Ed.

IT is time to give a few phrenological illustrations and their meanings. Students who have followed these pages so far, and

who have studied men around them, are ready to observe heads and gather up practical information on this most important branch of Human Science.

Illustration 9 shows the newest and most natural mode of classifying or grouping phrenological divisions, and the accompanying illustration (15) is the old mode of dividing into seven groups. For the purpose of practically studying character by form of head and quantity of brain in position both are useful. So far as it goes Fig. 13 gives the truth, but Fig. 9 gives the truth in a more evolved form. Phrenology is a growing science. Thinkers, observers, investigators are always finding something out. The student will see that fresh discoveries do not disturb the order of phrenological arrangement. No one finds an animal organ in the moral group, nor a feeling in the forehead. If anything of the kind does appear to be discovered we soon find out the error. In a physiognomical chart published not long ago in New York parental lovei s located in the upper part of the forehead. This physiognomical discovery is manifestly absurd, for there are many people with very large and full upper foreheads who are almost devoid of parental love; many, again, with full upper foreheads wh have an abundance of the same faculty. This being true, we cannot regard the fulness or otherwise of the upper forehead as indicative of the presence or absence of this faculty. Again, there are many men and women who have no forehead worth naming who are yet passionately fond of children, and also many animals devoid of face and forehead who are very fond of offspring. We cannot, then, trust the physiognomist who makes and prints a discovery so entirely out of harmony with established truth.

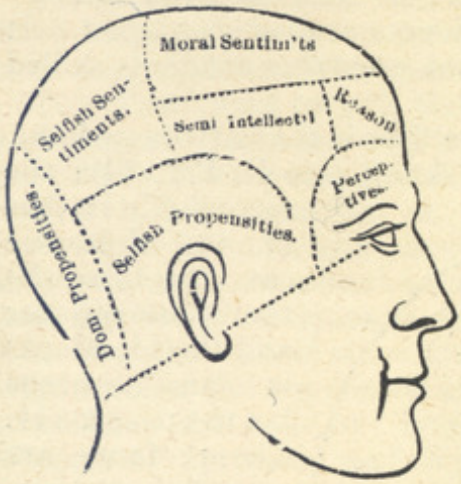


FIG. 15.

A STUDENT OF COMPARATIVE PHRENOLOGY cannot fail to see that the brain is a growth from a few ganglionic centres—upward and forward; that some creatures have only the parts of brain that manifest the selfish and self-protective faculties; that others have domestic propensities, and still others desire for praise, the perceptives, and some mechanical ability. In some he finds the powers of memory developed in high degree, and some rudimentary perception of causes, and a tendency to reason. In man alone he finds a full unfolding of the moral sentiments and the reasoning and intuitive faculties.

Growth of brain implies growing from the lower to the higher, from the animal towards the human. The fact that faculties least animal in their activity have their organs furthest removed from the animal centres goes far to prove Phrenology. If we found

benevolence mixed up with the selfish propensities we might reasonably doubt the scientific value of our discovery. This, however, is never so; the organs least necessary for the maintenance of animal existence are furthest removed from animal centres.

A higher form of brain is always more complex than a lower one. A simple brain goes with simple mental action, while complexity of brain goes side by side with complexity of mental action. Higher thoughts and aspirations require higher brain forms through which to manifest themselves. When the men of any race are growing more human their brains fill out and widen in the upper parts; when the reverse process is going on the brain is also reverting to the barbarian or savage type. These processes show themselves in a limited degree in individuals, and in the brief span of one short lifetime. Several great Englishmen have submitted themselves several times to phrenological manipulation and a careful series of measurements, and it has been found that their heads have grown both as a whole, and, in certain directions, as a result of certain kinds of brain action. Many cases of this kind have come under the writer's own notice. Changes of brain form, perceptible enough to be registered with a tape measure, have taken place in less than two years in fully-matured men and women.

A STUDY OF THE RELATIVE GREAT DIVISIONS of the brain will show us which group of faculties is likely to preponderate in our friends and neighbours; will enable us to see which are naturally business men, which mechanics, which observers, and which philosophers; will tell us which man is likely to be moral and religious, and which is likely to let his feelings have undue sway.

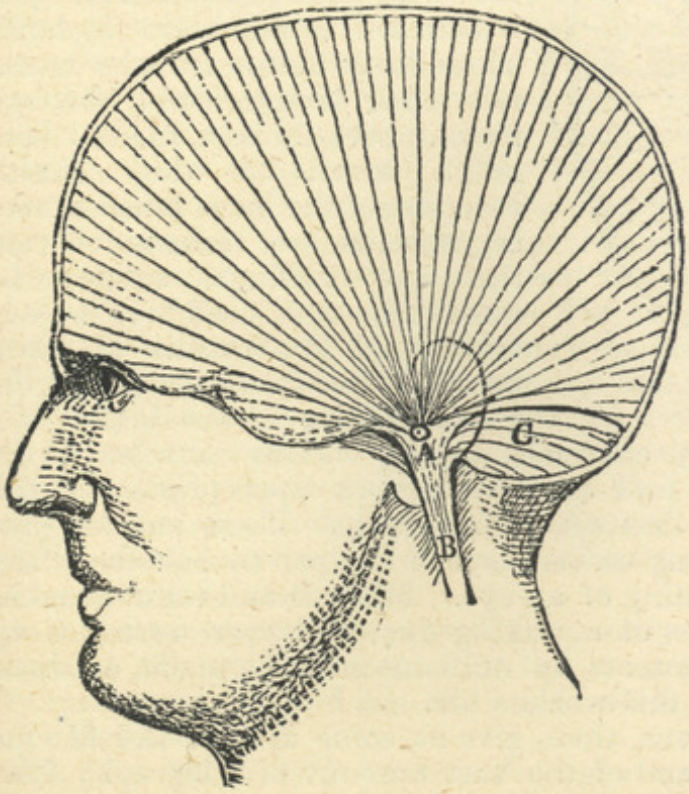


FIG. 16.

Phrenological readings of character and talents are a continual series of studies of brain depths and distances from a certain centre (A) in Figs. 16 and 17. These two are ideal sections of brains. The brain, though composed of fibrous and grey, jelly-like material, presents no appearance such as this. A thousand fibres would not occupy the space enclosed in any two of these lines. Histological research has

plainly shown that brain fibres connect one hemisphere of the brain with the other, and also the outer surface of the brain with the centres of the various senses. This is no longer a matter of doubt; the first microscopists in the world are agreed upon it. We know that nerve fibres are used for the transmission of sensation and force in all parts of the body, and may infer that the millions of nerve fibres that compose the fibrous portion of the brain have their uses. We may assume that each one has its own use. This being the case, the presence of a great number of fibres running between the central brain and the surface of the large brain would imply much activity of that part. Fibres and cells are multiplied in regions much used, and these increase brain mass in certain regions, and the skull—a living structure—has to adapt itself to the form of the brain it enfolds.

When we see telegraph posts laden with a great number of wires etween two centres of population we conclude that there is much telegraphic communication between those centres, and when we see by size and form of brain that there are a great number of nerve fibres running to certain parts we conclude that there is much exercise of those parts.

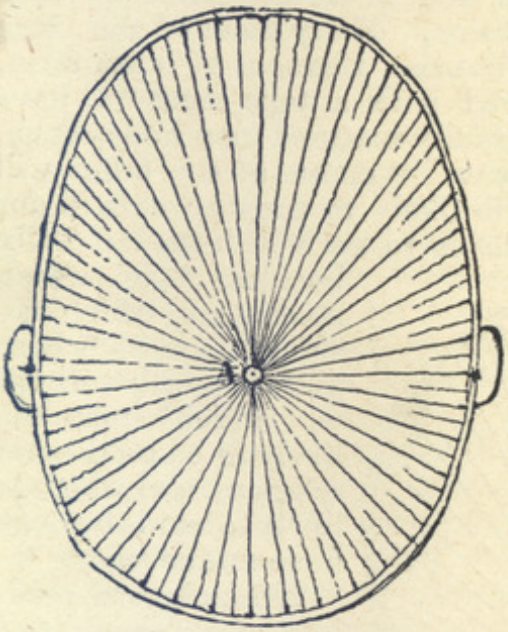


FIG. 17.

The external senses communicate with little inner brains, upon which the outer brain is built. These little brains in turn transmit their impressions through fibres, nerve-threads, mental telegraph wires, to the cellular structure of the large brain, where impressions are transmuted into thoughts, feelings, sentiments, emotions, and lead to certain decisions. The results of these decisions are sent back to the motor centres of the brain, and from thence, by many channels, to the various muscles which contract and expand, and produce actions appropriate to the thought, feeling, etc., that sets them going. These various processes, that take so many movements of the pen to describe, often take place in the twinkling of an eye. Millions and millions must be made in the course of a waking day, and even during sleep automatic nerve movements by millions must be made, or there would be no waking to this world's life.

These two illustrations, then, give us some idea of the fibrous structure of the brain, and of the vast amount of telegraphy that goes on between centres and surfaces, and back again. They also show us why mass of brain in certain parts indicate power in certain directions.

WE LISTEN TO A FEW CHORDS OF MUSIC. This is a very simple act to all appearance, but a moment's consideration will show us how far it is from simple. A few air waves strike the tympanium of the ear. Only a few waves, mind. Just the few that are caught by the vestibule, which is an almost circular opening, some three-sixteenths of an inch in diameter. The sound waves actually strike the walls, ceilings, and floors quite as hard as they strike the tympanium. If all the sound produced by the hum of a blow-fly could be poured into the ear for a second that ear would never hear another sound. The roar of a cannon would be silence compared with the hum of the fly. These few sound waves make the tympanium vibrate; these vibrations are communicated by a nice adjustment of little bones and muscles to an inner ear-drum, where water becomes the conductor of sound vibrations. Here the walls are lined with nerve-threads of varying lengths, the apparent use of which is to catch the shorter or longer waves, produced by deeper or shriller tones; another set of nerves carry these to a central ganglion, where they become an impression. This impression is sent along special fibres to where tune is a conscious faculty, and selects the harmonious sounds, distinguishing between them and discords.

Many steps have been purposely omitted in this description. Nothing has been said of the action of the labyrinth in detecting timbre, nor of the ear-drums in detecting loudness; nor has anything been said of the communion between tune and other faculties although such communion must exist—for one kind of music will make us pray, another make us laugh, and so on through the gamut of the faculties. If the one who listens to the chords of music is also the player of them the action of brain and mind becomes more complex still. The human brain is evidently the most wondrous structure on earth. Its physical and psychical activities present an awe-inspiring problem to the mind.

PHRENOLOGICAL READINGS ARE NOT THE RESULTS OF GROPING or feeling over the head. When the main distances from the centre are ascertained the hand may be passed lightly over the different regions to feel if there are any irregularities of form, not in sharply-defined, lumpy protuberances, but in the rounding up of various sub-regions. Brain activity can be felt by the touch. A dull-brained man has a soft, leathery kind of scalp, in which the fingers will sink a little; an active man, on the contrary, has thin and fine skull coverings, drawn more tightly over the bone, making the head hard to the touch.

A well-trained practitioner will frequently describe after a single glance at the general contour of the head, and will only need to take measurements and use his hands when he wishes to make a very careful analysis.

The four heads built on this face give a grand lesson in Phrenology, and also show the folly of fingering about in order to find out the main outlines of character. Little thickenings of the skull: a slight developing and sharpening of phrenological

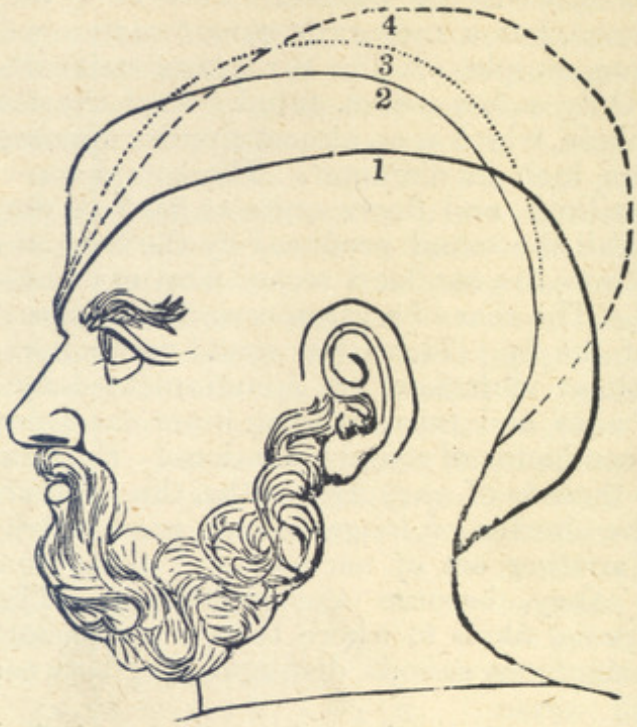


FIG. 18.

organs will not account for such differences in skull form as are here depicted. The differences in form are radical, and so are the characters. Evidently, it is intended that we should be able to detect brain forms by a glance. If we could only read men by a careful manipulation most of the rogues would get off scot-free. To make the study of human science popular and useful we must show how the main outlines of character correspond with, and can be ascertained by, a study of the main outlines of form.

Look again at Fig. 18. The heads, though differing widely in shape, are about equally smooth. There are no bumps. We have to study forms of head, not bumps. No. 1—the thick, dark line—is an outline of the head of Pope Alexander VI., of infamous memory. What intellect he had was mostly cunning, of the low, intriguing kind. He had great force and energy, and a vast amount of knowledge of the secrets of most Italian families. He had great wealth. All his powers were used to push his own interests and those of the Borgia family. Selfish, vile, guilty of about as many kinds of crime as any one man ever committed, he presents a history that quite corresponds with the low brain in the illustration. He died in 1503, poisoned, it is said, by mistake—some wine prepared for one of his guests being handed to him. Many horrible stories are told of him—they cannot be repeated here. Geo. Combe says that his head is despicable in the eyes of a phrenologist. It has one redeeming feature. The social region is prominent He liked social gatherings, and fed well the guest whom he meant to finish with the wine after dinner. He strove hard to give to his son, Cæsar, political power. Many of his murders were committed with that aim in view He appears to have been fonder still of Lucretia. These were his son and daughter by a Roman lady, named Vanozza. They had several other children, and were actually living together when Alexander bribed and intrigued his way to the Popedom. Even his social feelings, not being controlled by higher ones, failed to redeem his character.

THE THIN, CONTINUOUS LINE IS A PROFILE of Zeno, a Grecian philosopher, born about 355 B.C. He founded the school of Stoics, lived a very exemplary life, and was held in such honour that his

fellow-citizens gave him the key of their citadel. He was a remarkably thoughtful and consistent man, and, though of delicate constitution, he presided over his school for 58 years, and lived to be 98 His great aim was to teach people to reason rightly, and to live virtuous lives. He struggled to arrest the decay that he saw even then working at the root of Greek civilisation. Phrenologically considered, his reasoning faculties were remarkably strong, and well supported by high moral qualities. He is much above Alexander VI. in these regions, and is as much below him in the development of the animal and basilar brain. The differences are so great that no mere thickening of skull could account for a tenth part of them.

No. 3 (Fig. 18)—the thin, dotted line—is the finest form of the four. It is the profile of Father Oberlin, Protestant pastor of the Ban de la Roche. In 1767 he settled at Waldbach, and commenced his labours as pastor of the Ban. "He carried on with the utmost zeal, discretion, and perseverance the arduous task begun by his predecessor in that office, of civilising, humanising, and Christianising the half-barbarous people of his district. Road-making, planting of timber and fruit trees, agriculture, and various manufacturing employments were introduced by his influence and example. Opposition of ignorance and stupidity gave way before the mild force of his teaching and deeds, and the waste became fruitful, and the people industrious and instructed. He did all and got all done religiously, embodying in his life the truth that 'work is worship.' His services were rewarded with the affection and gratitude of his people, and also with honours of another kind—the Cross of the Legion of Honour, and a gold medal of the Royal Agricultural Society of Paris."

He was a Christian philosopher and philanthropist of the highest order. In the region of the religious feelings his brain rises higher than that of Zeno, but in the reasoning qualities he is not so fully marked as the ancient Greek.

THE FOURTH HEAD OF THIS SERIES is that of Phillip II. of Spain—a man whose whole life was spent in opposing the spread of civil and religious liberty. He was a tyrant and a bigot. He married Queen Mary of England, but the air of England did not long agree with him. His action caused the final revolt of the Netherlands. The cruelties of the Church gave him a grim pleasure; he attended on one occasion an *auto-da-fé*, where forty heretics perished. He was not vile in the same sense as Alexander VI.; the evil of his character lay principally in desire for unlimited power over the bodies and souls of men. He was a despot of the most tyrannical order. Hence the towering crown; the head long backward, but deficient in the regions of respect, benevolence, and intellect.

How different are these heads in form and size in various directions, and how the differences harmonise with the known differences in character and capacity.

The student who notes these things in his family and amongst his friends soon begins to form clear conceptions of character, and to know what kind of conduct to expect from this person or that.

He has no need to feel heads; he sees them, and notes their greater excesses and deficiencies. Indeed, Phrenology would be of little use to mankind if none but gropers could make use of it. Generally speaking, persons who have to grope over heads for their deductions are still very much in the dark as to phrenological truth. When they have to grope in one sense they are groping in another.

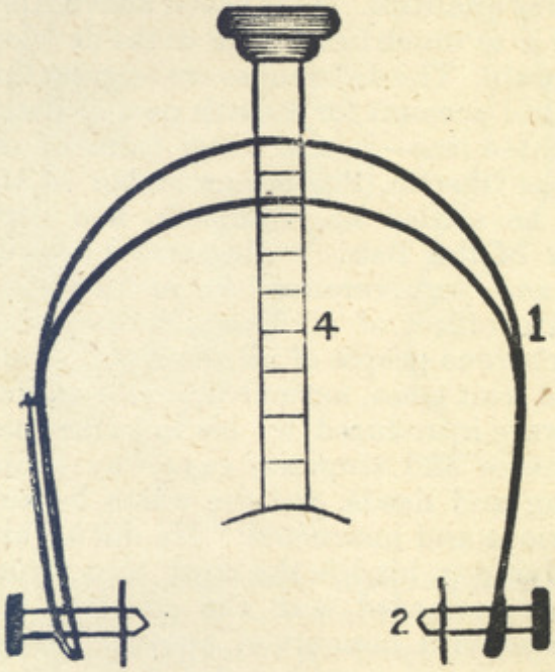


FIG. 19.—PHRENOMETER.

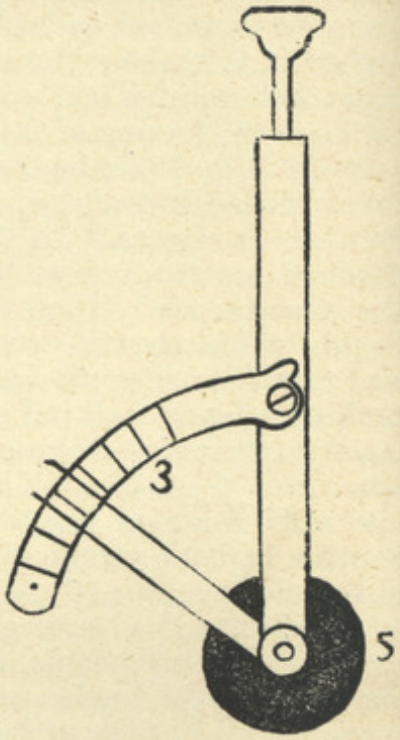


FIG. 20.

CHAPTER VIII.

GEOMETRICAL PHRENOLOGY.

"A measure to reach even unto you."

THIS is a chapter introducing a great subject that cannot be fully treated in a popular work.

The two illustrations (Figs. 19 and 20) are a front and a side view of the Phrenometer, an instrument invented by the writer for measuring brain depths from a common centre, a point midway between the openings of the ears.

No. 1 (Figs. 19 and 20) is an arc of brass large enough to span the largest human head, and wide enough to move freely from back to front; 2, 2 are pivots capable of being pushed inward or withdrawn to adapt the blunt points to ear-openings placed wider or less apart, the circular plate (5) preventing the pivots from entering too deeply into the vestibule of the ear; 3 is a quadrant screwed to the side of the arc to enable the operator to measure the facial angle; and 4 is a sliding rod marked in inches and tenths to give certainty in measuring. Its use enables the operator to take the depths of brain along the mesial line and com-

pare them with those of a certain standard, the result of a long series of observations on better class heads.

THE MODE OF COMPARING A HEAD with the normal one is illustrated by Figs. 21 to 26. The outlines dotted in these figures are those of the subject under consideration as taken with a strip of soft metal; the continuous outlines are those of the normal head. The Phrenometer supplies the straight lines as shown in all the six figures. The central point is represented by A in all these figures, but, owing to Figures 22 and 25 being horizontal sections running round about where a hatter would fit a conformitor (see dotted horizontal lines in 21 and 23), the point A in those sections is really above the same point in Sections 21 and 23. A in 22 would be at B in 21. The relative positions are, however, ascertained with a brief calculation, the basis of which must not burden these pages.

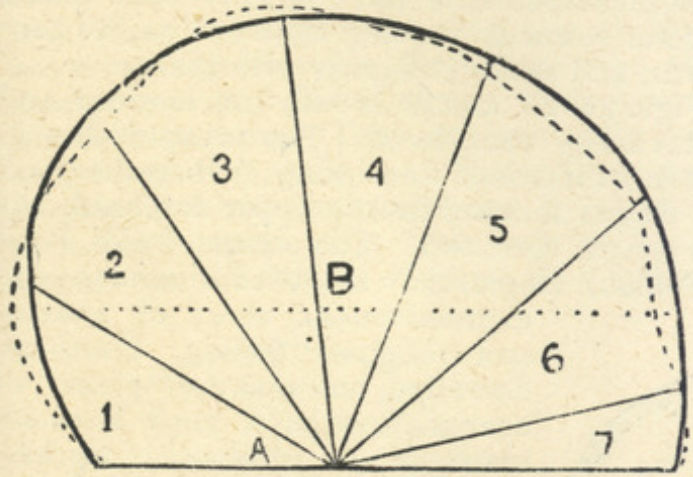


FIG. 21.—ELEVATED SECTION OF MESIAL LINE OF HEAD.

Figs. 21, 22, and 23 are three sections of the same head. The dotted line from 1 to 7 is from the occipital spine to the root of the nose. It runs outside the normal line in two places, but, with a few exceptions, presents a good outline. In the section shown in Fig. 22, F is the front, and the dotted lines, running mostly just inside the normal line, gives a good outline again. The same remark applies to Fig. 23. It rarely happens that a head coincides so nearly with the standard; heads are generally unsymmetrical and uneven in development. The skulls of the most active mental workers present the greatest irregularity of form; and that is just what might be expected on the phrenological hypothesis, for active mental workers are generally specialists, and developed in one direction more than in any other, and the brain form alters in

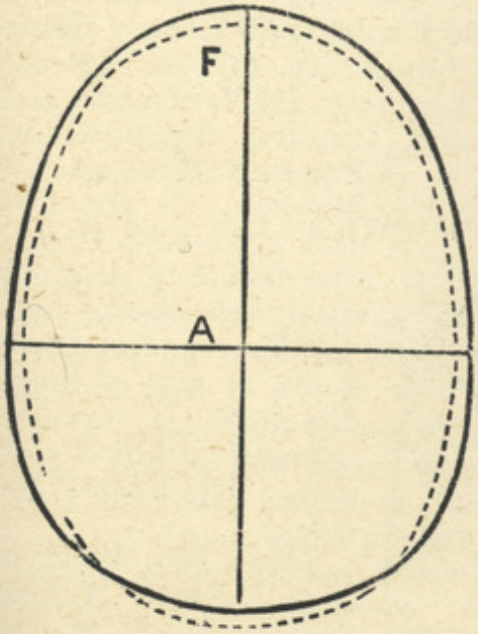


FIG. 22.—HAT SECTION.

the direction of its use. The great mechanician's brain will grow wider, the thinker's longer, and so on. The difficulty which has so far presented itself to the observer has been that of finding out which way the lengthening of the skull has come about, whether by growth backward or forward. This question the Phrenometer settles by measuring exactly the depth in all directions. It can also register changes. Although the instrument has only been in use since 1879 some re-measurements have already been made, and the results have gone towards proving that brains are continually changing in form, and skulls changing with them.

The head shown in Figs. 24, 25, and 26 is very much wider and lower than the one previously considered. The crown is low in the regions of Self-Esteem, Firmness, Continuity, Veneration, and Benevolence; the head bulges forward in the upper forehead, but is sadly deficient in the central forehead. The owner of this head would be Amorous, Selfish, Dogmatic, short of memory and expressiveness, short of charity and religious feeling, Cautious, Secretive, but manifest plenty of energy, and be a good business manager and mechanical worker. Sections 25 and 26 show the same head running outside of the normal lines in the sides and at the back. A comparison of outlines 21 and 24 will prove highly instructive to the student if he will remember that the portions of outline that enclose spaces 1 to 7 are—(1) Domestic and Social Feelings, (2) Love of Home and Continuity, (3) Self-Esteem and Firmness, (4) Veneration and Benevolence, (5) Human Nature and Intuitive Intellect, (6) Practical Intellect and Memory, (7) the Observing Powers. It may also be borne in mind that deficiencies are usually regional; that a dip in any of these directions is usually accompanied by a corresponding lateral deficiency.

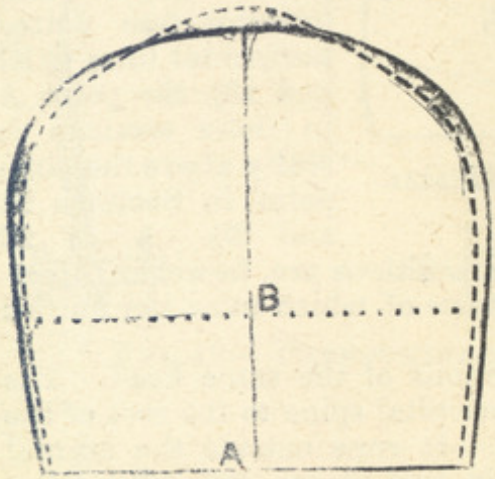


FIG. 23.—SECTION OVER EARS.

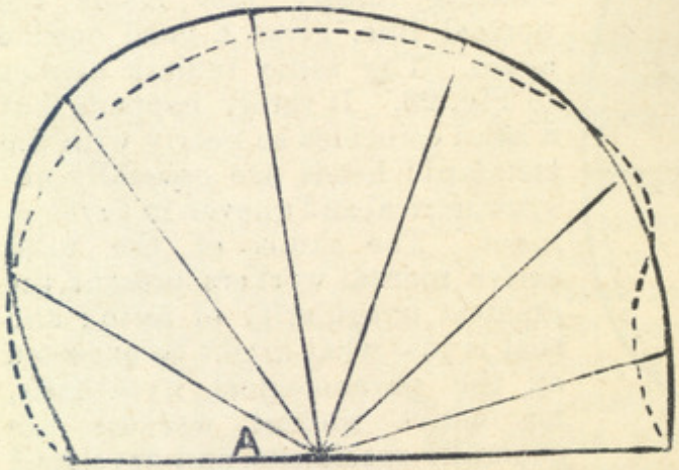


FIG. 24.—ELEVATION, NO 2.

STUDY FIG. 18 WITH THIS NEW LIGHT thrown upon it, and it will be seen that No. 3 in that illustration is

the one that would be most harmonious; that 1 would come far below the normal line, and bulge out behind; that 2 would pass outside in the region of the intellect; that 4 would be inside in the intellectual region, and overweeningly large in that of Self-Esteem and Firmness. It is also wise to study outlines of the thousands of living heads seen in social and other gatherings, and, where possible, to verify deductions from brain form by observations of character as manifested in every-day life.

A Wise Student will Observe in Silence. Few characters are more objectionable than those who are always talking about head forms and facial signs; their presence is irritating to all sensitive persons. They are generally ignorant, usually vulgar, and when they talk they flatter or arouse anger, or both. They frequently crown their misdoing by talking about "bumps," thus in a word proclaiming their lack of knowledge of, and lack of respect for, the subject of which they talk so glibly.

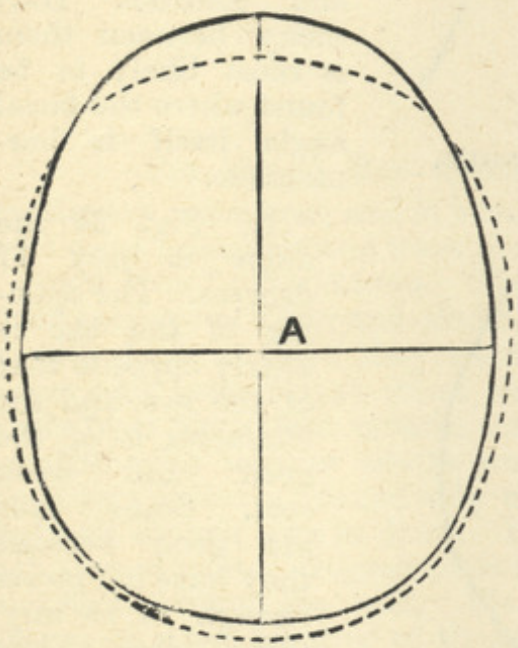


Fig. 25.—Hat Section, No. 2.

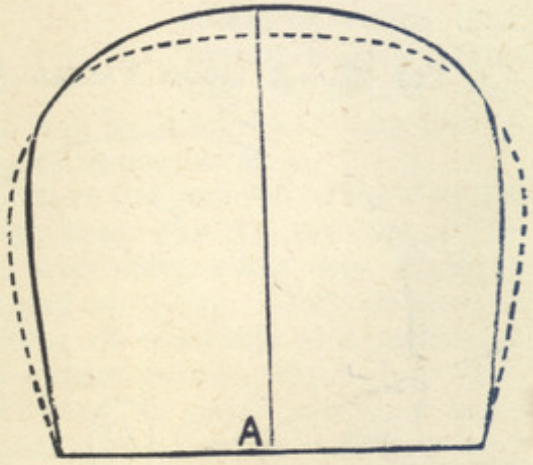


Fig. 26.—Over Ears, No. 2.

The Facial Angle, indicated by the Phrenometer, is a useful adjunct in the study of Geometrical Phrenology. In Fig. 27 the angle is 25°, and the head form, so far as the angle can indicate it a good one.

It is not safe to say of a man who has a large angle that he is bad, and of one whose angle is normal or small that he is good. All that may safely be said is that the animal propensities and animal forces are strongly marked. Whether these forces are likely to be properly directed can only be ascertained by a full study of the whole brain. Joseph Cook, the Boston lecturer, says that a man may have a tempest in his lower face if he has a hurricane in the upper face. He is right. And

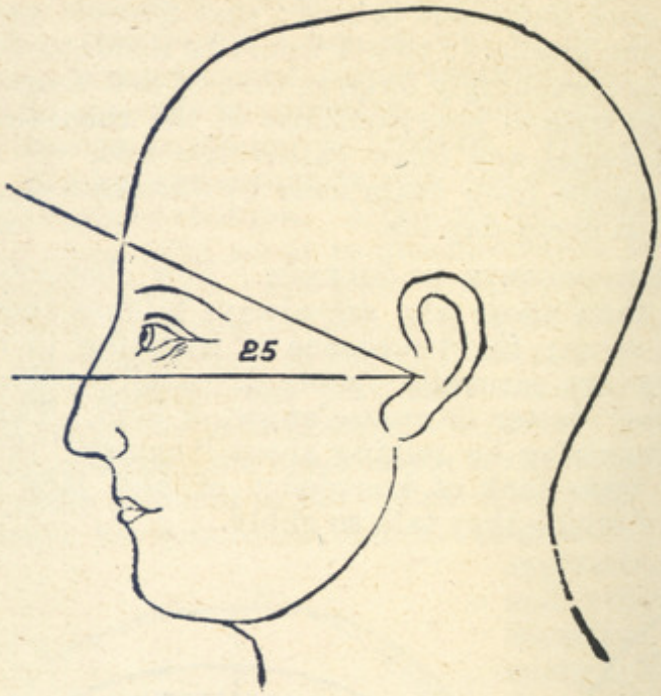


FIG. 27.—A GOOD FACIAL ANGLE.

FIG. 28.—A WEAK HEAD.

what is true of the face is true of the brain. The larger and stronger the lower brain the more efficient the man; efficient for good if the controlling faculties are strong, efficient for evil if the passions and impulses bolt like wild horses carrying their load to ruin and the grave. The lower brain gives the steam, the propelling power; the upper brain guides and controls. Harmony between them is most likely to be found where the facial angle itself is harmonious.

In Fig. 28 the angle is only 17 degrees. The opening of the ear is nearly opposite that of the eye, and the character is of the good and weak sort. Some men are good because they have not power enough to be anything else. They are born tired, and are indifferent specimens of humanity. They have thin, squeaking voices, and lack vir. Such should try to cultivate energy, and to be manly, lest on their tombstones should be inscribed:

"Here lies a man who did no good,
And had he lived he never would;
Where he has gone, and how he fares,
Nobody knows and nobody cares."

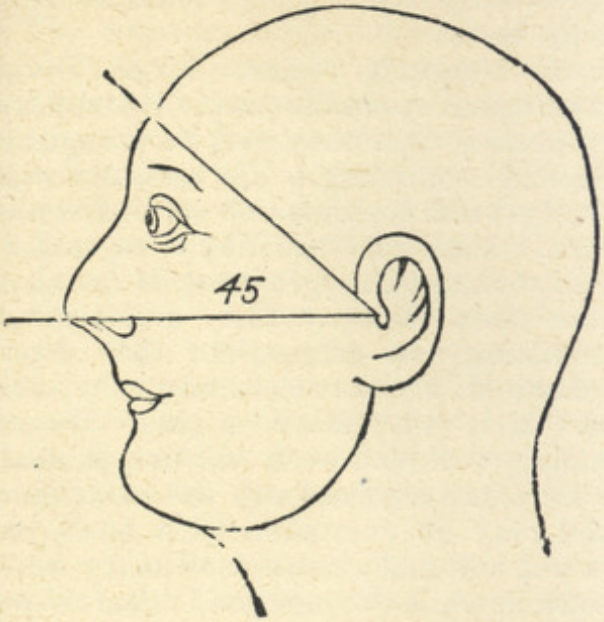


FIG. 29.—A BAD ANGLE.

Fig. 29 is that of a man having too large a facial angle. Here there is basilar force enough and too little top brain. Such men as these will yield to every impulse and passion, and, owing to this lack of control, they become murderers. There is no such thing as a murderous skull. No one can say of this man or that—"You will commit a murder." Nevertheless, some men are so prone to crime that society is quite justified in taking precautionary measures, and it would not be altogether impolitic to take some criminals and treat them as moral idiots.

SUCH MEN LURCH ALONG. They have the gaol roll in their walk; their carriage is mean and skulking; they like to lurk around in narrow, back streets; they smoke and sleep away the daylight hours and assemble at street corners at night. Here they pour forth from their foul mouths streams of obscenity and profanity, together with tobacco smoke and expectoration, which they eject upon any decently-dressed lady who may be passing. They have fashions of their own in dress. Boots with abnormally high heels; bell-shaped pants; frogged coats; slouch hats; and something red and flaring round the neck. Would society lose much by taking charge of a few hundred of these hyena-like evildoers and making them work under forced conditions for the good of the State? Are they not law-breakers? Can we see a gang of half-a-dozen any day who have not some gaol-birds amongst them? Are not these just the kind of people who make a police force a necessity? Are not burglars, pickpockets, spielers, thieves, and street robbers being continually developed amongst these gangs? Have they not a physiognomy of their own by which they are identifiable anywhere? See them where you will, and you find them with large facial angles and with a marked disproportion between top brain and basilar brain. The geometrical proportions of the brain, the large facial angle, and the low position of the ears stamp them as criminally inclined. They are frequently born with a strong bias towards criminality, and their companions and surrounding are such as make the most and worst of that bias. The children that have the misfortune to be born amongst this class, and of this

parentage, ought to be treated as neglected children, and cared for by the State, so that, perchance, early training may eradicate some of the evil tendencies born with them.

IN THESE TWO WAYS WE MAY MINIMISE CRIME. First—Taking charge of and boarding out amongst respectable people the children of the criminal and pauper classes, that they may be brought up to sobriety and industry. Second—Inflicting a life sentence upon a man who has twice previously been convicted of serious crimes against property and persons. Men who are likely to make a certain use of their liberty as soon as they get it ought not again and again to be turned loose upon society. They ought not to have the opportunity of committing new crimes, nor that of procreating their kind. Some criminals can be reformed; others are simply human wild beasts. Men who have studied Human Science—Geometrical Phrenology included—can tell in a moment the difference between the habitual criminal and the reformable one. A man naturally good may be overtaken in a fault, and receive punishment. Such a one will make use of his liberty, when regained, to work out his salvation, while the ingrained criminal will only look out for fresh opportunities of committing crime, and add cunning to cunning, and violence to violence, in order to escape detection and arrest. A capable Government Phrenologist would sift these two classes from each other, and make prison life profitable and beneficial to one class and strictly punitive to the other.

PARENTS CAN MAKE USE OF THESE INSTRUCTIONS. If a boy has low ears and a large basilar brain they ought to repress destructive tendencies and impulses, and to rule that boy with great firmness, only giving liberty gradually, and restricting it again if abused. Some children need such rule from the cradle. Firmness in such cases is the only kindness possible. Such boys regard any other kindness as weakness, and proceed to take advantage of it. Give them an inch and they take an ell. Let them out one evening and they will go every evening, and will gravitate to the street-corner nurseries for criminals. Other boys are just the reverse. They have thin necks, small lower faces, not much brain about the ears; the facial angle is small, and the ears are placed high. These boys are weak in propensity and impulse; they have to be taught to stand up for their rights, and sent to play the rougher games that tend to develop basilar energies. The Duke of Wellington knew something of human nature when he said that Waterloo was won on the playing fields of Eton—the fields where the otherwise sybaritish sons of England's aristocracy have to fight their own battles and to quit them like men in the rough sports of that democratic schoolboy world.

There are many other phases of the geometry of Phrenology that might claim more or less attention were this meant merely as a manual for students. Here we have to deal with matters useful to all readers, and so shall not show the methods adopted by various investigators to find out the sizes of brains. Students may

be referred to the works of Bain, Bastian, Luys, Carpenter, Hitzig, Ecker, Ferrier, and others for fuller information on this subject.

The average measurements of heads ought to be generally known, and something of brain weights may not be out of place in a manual for the millions. The average measurement of a fully-grown man's head around its greatest circumference (see dotted line B in Fig. 21) is 22 inches. The measurements from tragos to tragos,* over the head, from point A, same illustration, to the similar point on the other side, are, along line 2, Fig. 21, 12 inches; 3 ditto, 14 inches; 4, 14½ inches; 5, 14 inches; 6, 13½ inches; 7, 12 inches. These measurements can be taken with a common tape. The writer uses a steel tape of the ordinary kind. A deficiency or excess in any of these directions must be considered in estimating native talent and disposition. The student, finding such divergence from the normal standard, needs to note which way it leaves the normal, and whether an excess is caused by height or width.

Say No. 4 measurement is 15 inches. It may be caused by excess of "Cautiousness," over which the tape passes, or by extreme height of "Firmness" and "Conscience." It may be caused by a large facial angle and low ears. Deformity of skull plates, congenital defects sometimes upset all modes of measurement. These things, however, are exceptional, and very rare, especially the latter; for few children survive whose skull plates are seriously misshapen by the ordeal of birth. The measurements here given refer to average cases. Flathead Indians crush the skulls of infants by binding a board tightly on their heads. Chinese mothers turn the toes of their female infants under their feet. They produce deformities. We do not take as models the feet of Chinese aristocrats nor the heads of Flathead Indians.

THE MEASUREMENTS TAKEN BY THE PHRENOMETER (Figs. 19 and 20) find the actual depths of brain from centre to surface, and are very useful. They, again, are illustrated in Fig. 21. Line 2 is usually 4.4 inches; line 3, 5 inches; line 4, 5.4 inches; line 5, 5 inches; line 6, 4.7 inches; line 7, 4.4 inches. A divergence in any of these shows an actual deficiency or excess of organs lying on the mesial line. The tape measurement along this line, from root of nose to occiput, is, in normal heads, about the same as from tragos to tragos.

Regarding capacity of skull and weight of brain authorities differ, some making the average higher than others. They agree, however, on one point—that of finding civilised brains larger and heavier than savage ones. The average European brain (male) is about 47 ounces. The German brain is a little heavier than the Southern ones; and the Scottish brain, again, heavier than that of the south of England. The average female brain is about four ounces less than that of the male. This, as we shall shortly see, does not of necessity confer upon men an intellectual advantage,

* The tragos is the little mound in front of the opening of the ear. The centre of this mound is the point A.

for generally women have less basilar brains than men, and are weaker in the regions of appetite and passion.

Some investigators have tried to find a relationship between mere skull capacity and intelligence. They have failed to do so. Some great men have had very heavy brains; other great men have had brains of average size; other men, again, with uncommonly large brains, have not been noted for special mental capacity. This is just what a phrenologist would expect. Cuvier's brain weighed 64½ ounces; Abercrombie's, 63 ounces; and a day labourer, with no pretension to intelligence beyond the common, leaves a brain heavier than either. In the two former cases the brain was large in front and top—massively large in the whole frontal region; in the latter case the brain was large in the lower regions.

SIZE OF BRAIN IS AN IMPORTANT FACTOR; but, as previous chapters have explained, it is only one factor. Bain says:—"The concomitance of size of nervous system with mental power throughout the animal series is sufficiently admitted for the purpose of our general argument." The brains of idiots are notably deficient in size, except in cases of water on the brain, when the head is larger than common.

Dr. W. B. Carpenter, commenting on size of brain, says:—"There is a marked diversity in respect of size between the Brains of different Races of men; those of the most civilised stocks, whose powers have been cultivated and improved by Education through a long series of generations being, for the most part, considerably larger than those of Savage tribes, or of the least advanced amongst our own peasantry. So far as can be judged from the few cases which have furnished adequate materials for the determination, the brains of those earliest races of men, which (like the old 'flint-folk') had made but a very slight advance in the arts of life, were extremely small. . . . On the other hand, those who have obtained most influence over the *understandings* of others have generally been *large-brained* persons of strong Intellectual and Volitional powers, whose Emotional tendencies have been subordinated to their Reason and Will, and who have devoted their whole energy to the particular objects of their pursuit." Dr. Carpenter wrote the above, and did not know that he was a phrenologist of first rank. Indeed, he was entirely indifferent to what he supposed to be Phrenology, and at times spoke against the science, of which he was, unconsciously, one of the foremost teachers of his century.

CHAPTER IX.

STUDIES AND EXAMPLES.

"In the soul are many faculties, of which reason is chief"—Milton.

WHAT is a faculty? An attribute or power of mind. What is an organ? A tool, by and through which the faculty manifests itself. We have the faculty of seeing, and the eye is the tool used in seeing. So with hearing and the rest. Our bodies are made to

respond to the spiritual from within, and to the material from without. The brain, as head of the nervous system, is the special home of the spirit, the ego, that retains identity while the material structure is continually worn down and replaced. The brain is the least durable of bodily structures; each thought or emotion wears down some of the brain cells. In discharging their duty the cells perish. Materialists say that the brain evolves mind; that the brain retains impressions. Were that the case the brain would need to be the most durable of structures instead of the least so.

THE MAN OF EIGHTY REMEMBERS BEING THE BOY of five, and yet he has worn out some hundreds of brains in the meantime. He retains the scar resulting from the wound in babyhood. True; but who can think of all memories as brain-scars? And, if so, what property in matter transmits the scar to the new particles? Until Materialism makes its position more tenable we retain the words faculty and organ—the tool-user and the tool used. Many young phrenologists confuse the two, and say one when they mean the other.

What constitutes a faculty? (1) It is found in one animal and not in another. (2) It varies in the sexes of the same species. (3) It varies in proportion to other faculties in the same individual. (4) It appears at an earlier or a later period of life than other faculties. (5) It may act singly or rest while others work. (6) It can be inherited in weaker or stronger degree. (7) It may singly preserve its sanity or become deranged.

A FACULTY IS RELATED TO SOMETHING it has to work upon, and related to something it has to work with. The faculty of flying implies a resisting medium—air to fly in, and a pair of wings to fly with. The faculty of reasoning implies some subject on which to reason, and a portion of brain substance—a definite set of nerves and cells—to reason with. We may rest assured that there is no more mixing of functions in the inner senses than in the outer ones. When an organ is gone the function ceases just as surely as the man's sight departs when the eyes are destroyed.

So it comes that we infer the presence of a faculty when we see its organ. The fin tells of swimming, the wing of flying, and the forehead of knowing and of thinking. A grand old anatomist wisely says of the brain:—"This is the organ of the internal senses."

30.—IDIOT.

The idiot (30) has not the organs of reason; indeed, he has not much brain of any kind; is more helpless than his four-footed neighbours. The thinker (31) has these organs in rich abundance, the great upper forehead being a perfect dome of thought. Such extremes are not met every day. There are many gradations between these two. By study-

31.—THINKER.

ing extremes, however, we learn to study means, and learn to distinguish between the average forehead and the slightly superior or inferior one.

A large forehead means intellect. But which part is largest? The forehead is a four-storey house. Which story is the widest, fullest, deepest, most roomy? (See Fig. 9.) The man uses most the part most prominent.

Combe and Lavater were both students of Human Science; both eminent writers—one on Phrenology, the other on Physiognomy. Combe's studies were mostly philosophical and theoretical. His "Constitution of Man" has been translated into several Continental languages, and has had a phenomenal circulation amongst English-speaking peoples. It is a marvel of close reasoning. His works on "Education," "Moral Philosophy," "Science and Religion" are all highly philosophical. They must have emanated from a philosophical mind—one that would use most the upper stories of the forehead. His teachings have also a highly moral tendency, and must have been written by a man whose brain is high in the moral region.

FIG. 32.—LAVATER.

Lavater's work in this field is widely different from that of Combe. Lavater observes, idealises, moralises. His tone is religious, poetical, brilliant. He rarely reasons. He almost fails to generalise; his "Fragments" are never woven together by general principles.

One man uses the perceptives, ideality, and the religious emotions; the other uses the reasoning and intuitive brain and the moral sentiments.

COMPARE THE TWO HEADS 10 AND 32, and see how the phrenological contour agrees with their mode of work and of expression. Lavater was always predicating character from form of face. Combe but rarely did so from form of head. Indeed, Combe never practised Phrenology as a profession; he lectured on it as a science, tending to simplify psychology and metaphysics. Lavater wanted to see; Combe to think. Lavater sought facts; Combe principles.

One observed; the other thought. The foreheads and features correspond, and both agree with the lasting productions of these two great minds.

33.—PRIDE.

Look again at No. 9. The aspiring sentiments are located in the back part of the crown of the head. In Illustrations 33 and 34 we have a contrast—an excess and a deficiency of this region. The figures are good ones, conveying three lessons, if not four. First—They present a sharp phrenological contrast, enabling readers to judge of their friends from this standpoint. Second—The physiognomy is true to Nature, an expression of contempt and a sneer being visible on one face, and entirely absent on the other. A sneering, contemptuous, proud look will make enemies anywhere and everywhere. The face of 33 is hateful, and will stir up anger; that of 34 is respectful, devout, thoughtful, and humble. Third—The attitude is true. In one stiff-necked defiance, with its head thrown back, carried on high as if not deigning to look upon anything beneath it; in the other the slight bend of philosophical humility—not an abasing of self so much as a tendency to charity and recognition of the rights and virtues of others. A fourth lesson may be deduced from the shallow front brain of one, and the large reasoning organs of the other. The head inclines in accordance with its form. It is easy to hold up a head that has no weight in front, and very easy to toss an empty one. Indeed, the head that settles a dispute with a toss is not weighted either with brains or ideas.

34.—HUMILITY.

35.—PERCEPTIVES AND MEMORIES.

HERE WE HAVE ANOTHER PAIR OF ILLUSTRATIONS, showing two more forms of foreheads. In Fig. 35 the two lower stories are the leading ones—the Perceptive and Mnemonical intellects lead. In the other (36) the Reflective and Intuitive are the most prominent. The first observes, gathers knowledge, remembers; the second reasons, theorises, speculates, philosophises, and deducts. The artist has not been careful about the physiognomy Gallileo had not his ear quite so near the top of his head.

36.—REFLECTIVES AND INTUITIVE.

ANY SPECIAL ASSEMBLAGE OF MEN AND WOMEN will furnish a type of head and face. A gathering of medical men and scientists does not look like a synod, a presbytery, or a conference. A trades' association puts before us a style of head that differs

materially from the one that meets to see a dog fight or a pugilistic encounter. The gang that gathers round a cockpit would have some difficulty in persuading any sane person that the object of their meeting was prayer, praise, or scientific instruction.

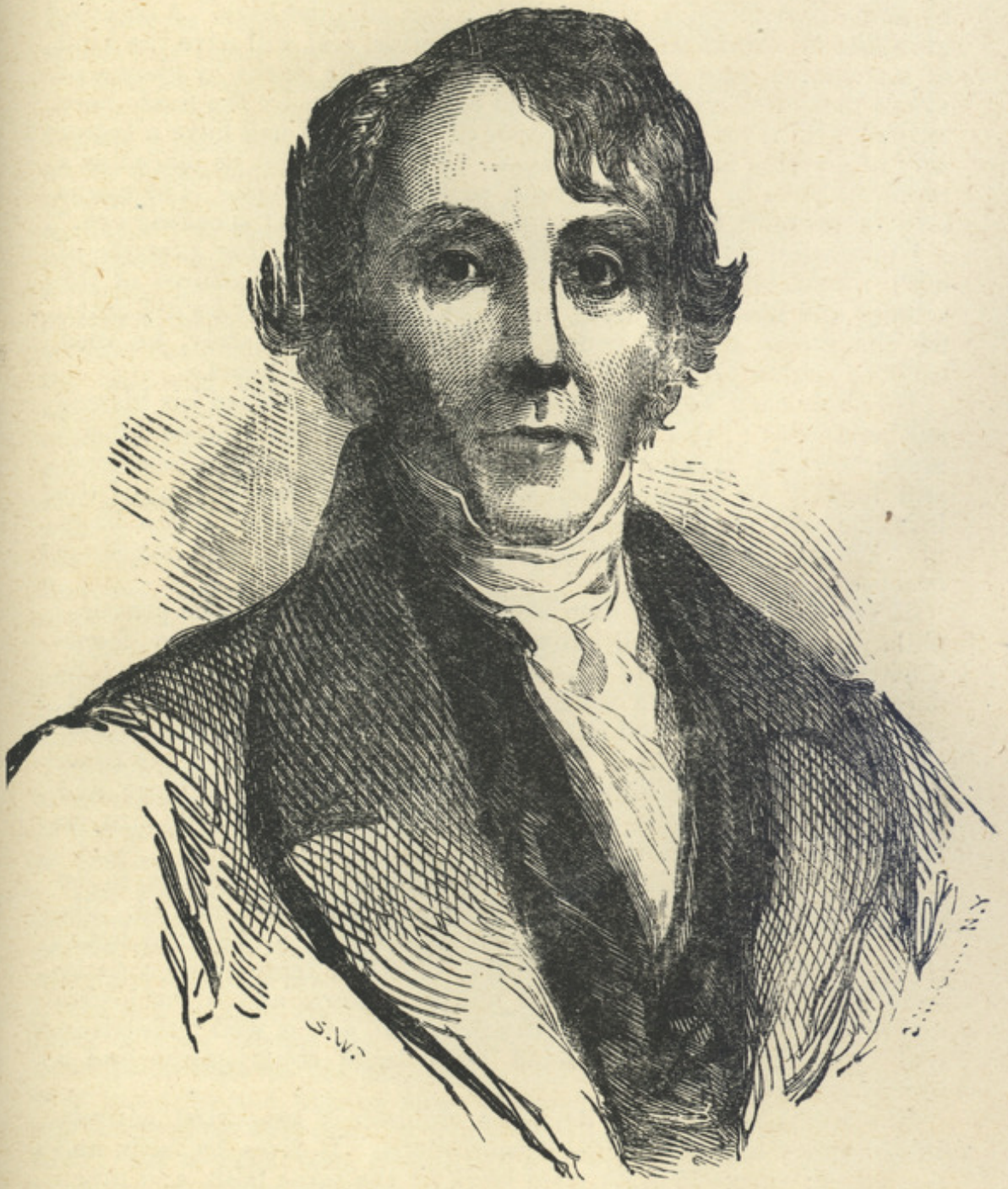
Men with certain propensities will be attracted by certain performances which they will enjoy or share, as the case may be. High-brained people will not care for pugilistic and similar encounters. Low-brained ones will not care for instructive lectures, or for sermons that appeal to moral and religious faculties. Each faculty seeks its own food. When high-brained men do fight it is for liberty or some moral principle. They then become terrible antagonists, for their whole moral nature adds its force to the blow. For the finest assemblage of fighting faces belonging to modern history see the bas-reliefs on the monument of the Franco-Prussian war in Berlin. There are the men who led the conquering armies of Germany to Paris; and the faces are all the strong Teutonic ones, with wide heads and large, firm chins. Such men flock to battle; their music is the roar of the cannon.

37.—Bond.

In the Rev. Dr. Bond (37) and in Sullivan, the American pugilist (38), we have two distinct types of men. The animal propensities and the selfish propensities (see Fig. 9) are very prominent in Sullivan, and just the reverse in Dr. Bond. In a scale of 1 to 7 these would be marked 3 to 4 in one, 6 to 7 in the other. In this case the illustrations are in every sense true to life—in form of face, and even in expression. They are, therefore, physiognomical studies as well as phrenological ones. One face is kind, thoughtful, mild, intelligent; the other is stern, pitiless, selfish, brutal, and yet possessing the tenacity and endurance of the bull-dog. A young maiden who wants a kind and sympathetic husband will see that she never encourages the addresses of a man who is unduly wide about the ears, or whose ears are too low. Both of these signs of force and cruelty exist in Sullivan.

38.—Sullivan.

The Rev. J. E. Channing furnishes a good example of high intellectual capacity of the literary kind. The moral brain also is high, wide, and rounded. He made his mark as a preacher and writer. He ministered to one congregation for nearly forty years. No man in Boston was more widely known or better liked. Senator Sumner said of him:—"No man has exerted, since his time, so great an influence on his fellow men." And Baron Bunsen:—"The influence of Channing on the Continent of Europe is greater than that of any author, living or dead. If he be not a prophet of God's presence in humanity I know of none such." His writings are now translated into nearly every European



89.—J. E. CHANNING, D.D.

language. How well this corresponds with the fine, thoughtful face, and the grand brain, depicted in Fig. 39.

The plan of putting in one man to represent the fullness of one organ and another to represent the deficiency of the same is adopted by many phrenological writers. It is not adopted here. A popular grouping of organs suits this manual better, and will give the kind of instruction most needed. The student who learns by glance of eye to measure brain regions, and estimate men by the mode here taught, will never become a groper of heads; he will have a better way of arriving at his conclusions. Channing might be placed as a representative of Language, both written and spoken. The eye is large, expressive, and is not cramped for room. It is a "speaking eye."

Illustration 40—Arnold of Rugby—presents another example of high moral brain. He, again, has the eye and features of the scholar and writer. During his short reign at Rugby he did much for the moral tone of young England. Unfortunately, he died early of angina pectoris, a terrible affection of the heart.

He knew each boy in that great school, and studied his history and character; and by treating the boys as gentlemen he did much towards making them into such. He abhorred falsehood, and took it for granted that what a boy said was true, until the lads, for very shame, told him the truth. "I cannot tell a lie to Mr. Arnold, for he believes me," says a Rugby boy, who has since become famous.

There are many local men well worthy of notice. The practical philanthropist and well-known preacher whose picture forms illustration 41 is one of these. He is not an eloquent man; he does not try to take a leading political or social position; and, though both rational and studious, he does not claim notice either as a scholar or a thinker. Yet he is one of the men of his time, and works without ceasing for the benefit of destitute children, and for elderly ladies whose means have failed them and who are no longer able to earn their living.

The Rev. C. M. Cherbury is no dogmatist; he belongs to no church organisation; he teaches no special formula nor creed. He tells people to worship God in their own way; to obey the laws; to pay their way; to live honestly, sensibly, temperately; to be good husbands and wives, sons and daughters, and to be loving and forbearing. He is eminently practical, and is well understood and much loved and respected by a large congregation and a numerous circle of friends.

The Home of Hope for destitute children is supported entirely by voluntary and unsolicited subscriptions. It lives by faith, and flourishes; succeeds in its good work by the same faith, and much tangible work. The practical business brain of Mr. Cherbury so managing it that nothing is frittered away. Fifteen pounds a year for each child, paying board, residence, clothing, salaries, and tuition. For his work as centre and circumference of this institution Mr. Cherbury has never received a farthing, and yet his labours must have saved the State Purse thousands of pounds.

As a phrenological study note the wide head, indicating practical sense, business ability, energy; the full top-brain, indicating the moral and religious qualities; the large lower forehead, telling of perceptive and mnemonical intellect. Had this man gone into a business he could have made a "pile;" possibly he is making something better and more enduring.

Here we have another practical philanthropist—Forster, founder of the *Herald* boys' "Try Excelsior Class." (See Illustration 42). This is a good face and head. The top-brain is wide and full both at the crown and the forehead. The forehead tells of thought and practical intellect; its squareness and width indicating mechanical ability. The height of the front tells of benevolence, suavity, imitation, and the combination of faculties that give tact, persuasiveness, and ability to understand character and adapt proper means in teaching and managing either boys or men. Mr. Forster's success has been phenomenal in two ways. In catching and training half-wild boys and making them into responsible and law-abiding citizens, and in interesting capitalists, merchants, and others sufficiently to cause much slackening of purse-strings, and giving of goods and money for the benefit of these same boys. He is cautious and sensitive naturally; would never think of asking for a favour on his own account; still, on behalf of his *Herald* boys and his Toorak Try Class he will beard any financial lion in his den and use his persuasive powers to the uttermost.

The width of brain about the ears tells of courage and business capacity, and indeed Mr. Forster is remarkably courageous and helpful. His institutions are managed with great economy, and the boys are taught to save their money and help themselves. The real value of the work done by this unassuming and sensitive man can scarcely be appreciated by his contemporaries. The face is a firm one, but very sympathetic and expressive. A wood-cut at best can only give a recognisable outline.

The Earl of Aberdeen (see Illustration 43) is a good Human Science study. The illustration here given is a fairly good one. It shows the high brain and large upper forehead. The moral and religious qualities are well represented. Nothing but harmonious living and a high standard of moral excellence can be expected from a man having this kind of brain. Some time ago, in a description sent to the Melbourne *Herald*, the writer said:—"If ever integrity and honour were stamped on a human face, they are stamped on this one. A white and delicate face, but fine and firm; not a weak face, though not one that tells of muscularity, nor even of robust vitality; fine featured, clear; nothing murky nor doubtful about it. Such a man would not blench if called upon to face a hail of hurtling shot and shell; it is a face that would confront anything in the discharge of duty."

Look at the regions of brain in Fig. 9, and compare with this head (43). Regions 1 and 2 are deficient; there is but little animality and selfishness. Region 3 is fully marked; so is 4.

40.—Arnold of Rugby.

The lower storeys of the forehead are not full (5 and 6). No phrenologist would expect the Earl to shine as a man of science. All the upper regions (7, 8, 9, and 10) are very prominent; hence the moral and intellectual powers have full sway in his life. Our students who note these peculiarities of brain form cannot fail to become good judges of the general character, even though they never learn the details of phrenology.

CHAPTER X.

FACTS ABOUT FACES.

Each one of us has got a face. That is fact the first. Each face reveals something of the soul that lies behind it. Fact the second. Each face records the history of its owner; tells of growth upward or downward. Fact the third, and a very solemn one to ponder over. Facts about faces are so numerous that we cannot count them; each new face presents some new problem for solution. There are long faces and short ones; broad faces and narrow ones; fat faces and lean ones; coarse faces and fine ones; pale faces and ruddy ones; healthy faces and sickly ones. Each reader can extend this list as far as he or she likes.

Said a young man in the writer's office the other day—"People tell me that I have got an honest face; is that so?" The answer he received was—"Your face has never been honest since you have been able to steal; you have been a thief and a knave all your life, and have never been held back from sin by any moral consideration. Your face is hard—hard as brass; you can lie to people and look them right in the eyes; but as for honesty of face, there are no traces of honesty or innocence about it. And your head matches your face. It is about the worst that ever came

41.—REV. C. M. CHERBURY.

under my notice, either amongst free men or the prisoners in the numerous gaols I have visited."

He promised to amend his ways and go to sea for a time, but did not keep that promise; for he was soon arrested for his old crime —burglary—and the list of previous convictions being a long one, he was sent to Pentridge for several years.

An honest face has clear, well-opened eyes; and yet such eyes are frequently seen in the faces of knaves. Cats, owls, and tigers have eyes clear enough; but where is their honesty? It cannot be said of any feature that anything about it is a sure sign of knavery or honesty. A knave is selfish, and his head and face will incline to the form of selfish animals. A broad face and low, broad head indicate selfishness, and when the rein is given to this cast of mind it becomes greedy enough to covet the possessions of others. And yet there are many broad-headed men who are honest: they are wise enough to see that honesty pays best.

The clerks and salesmen that form a great proportion of our gaol population are not broad-headed. Acquisitiveness is not large amongst them. They have not, as a rule, been careful enough to live inside their incomes; they have drunk, gambled, speculated, got into difficulties, and taken sums of money entrusted to them intending to get out of present difficulties, win back their losses, and restore. Alas! they have not acquiring power enough to gain or retain, and the stolen money goes after the rest and more follows, until the end comes. General weakness of character is more to blame in many cases than selfishness or innate dishonesty. The real knaves prey upon these fools until they are picked clean and sent to gaol. Gaols, as at present constituted, are scarcely the places for these men. If they were put to paid work, and charged for their keep, and allowed to pay off their debt by their labour, it might be better for society: punishment and restitution would then go hand in hand.

The honest face is longer than its width; its eyes are not of the hard, staring sort; it is firm and calm; is fuller in the upper regions than in the lower and central ones. It is sometimes convex in profile, generally straight, rarely concave. A concave face is almost invariably a mean one. Selfishness and Miserliness are connected with the sunken eye, the in-drawn mouth, the thin cheeks and other forms of concavity. A concave face always looks hungry.

The virtues and vices as shown in the face are indicated quite as much by expression as by form. Mud in the character puts mud into the complexion, and especially into the eye. Shame blackens the face. Surprise or pleasure causes a slight slackening of the nerves that control the arterial circulation—result, a rush of red blood and a rosy blush. Shame causes a tightening of the nerves that control the venous circulation, and the result is a purplish dark blush, accompanied by self-consciousness, heat, and partial asphyxia. This blush fades away slowly, and is painful. Let selfish feeling preponderate and evil desires have sway in our inner consciousness

and the face will grow thick, turgid, and impure. What we do in the inner closets of our being shows itself from the housetops of our faces.

People speak of the "Human Face Divine." They easily utter the words, but do they understand the meaning? It is the face as God meant it to be: The face made in His Image and Likeness, the perfected face free from sin-clouds, never drawn by pain, free from lines cut by sorrow and care. It is a face illumined by a light from beyond sun and sky, a light that will remain bright when the sun has become a mass of cold slag, the dead centre of a dead planetary system. In some faces we see patches of this light even now; a clear soul shines from the eyes and renders the features mobile and sympathetic. Under the rush of our highest feelings and emotions our faces now and then become partly transfigured and our eyes emit light. The generous action and unselfish play of our highest faculties, reasoning, intuitive, and moral transform us; we become angels of light.

42.—Forster, the Boys' Friend.

There are men and women who can see the play of magnetic lights about the heads and faces of people in the supreme moments of mental activity. The halo placed around the heads of saints is an exaggeration of these lights, but the idea of the halo is based upon actual observation. Storms of human passion will manifest themselves by their own lurid and baleful lights issuing from basilar regions of the brain and from the lower face. The Divine human face is one in which there is a full incarnation of divinity. Such a face must be surmounted with a full-orbed brain; it must have behind it a sense of perfect rightness of life, perfect freedom from sense of sin and shame; it must be happy and full of faith and confidence; such a face reveals a soul in harmony with itself and with all the forces of the

universe, call them by what name we will. Of such a face Dante says :—

"She smiled so joyously
That God seemed in her countenance to rejoice."

Says Joseph Cook :—"But what is to be said of the light that beams from the forehead, and from the cheeks, and seems to be capable of beaming from the whole exterior of our mysterious form? That radiance does beam from the forehead; it does beam from the cheeks; and why might it not, if this capacity to shine were once put into full action, beam from the whole man?" And again :—"It is uncontrovertible that a very peculiar, commanding light is brought into the face by the activity of the upper faculties in man. We are to explain this light and its effects by studying man as an organic multiplex. The light is there, and you know it is there. We see it. It is a physical fact." Evidently Joseph Cook has seen this light; the writer has observed it from his boyhood. He has seen it playing about the brows of orators; he has frequently seen it in the faces of good women; an elderly Quaker lady got up to address a meeting to which he was taken when a boy with a face shining as if it had been fine porcelain with a brilliant lamp inside it.

46.—Aberdeen.

Science does not yet explain this Divine light in the face; there are many eyes that do not see it and many—too many—faces so opaque and selfish that were any light behind them it could not struggle through. Enough, however, has been seen to convince us that the transfiguring and illuminating of faces and bodies mentioned in our Scriptures is a mere statement of observed facts.

A lesson on faces is of necessity a moral lesson. It is an incentive to virtuous action to know that pure thoughts and good actions stamp their impress upon the face. We are restrained from vice when we know that each sin writes

its mark. A weak back shows itself in the face; so does a weak stomach, liver, heart, or lungs. And a lack of moral backbone is just as visible as the rest. Study the frontispiece and its explanation; or even the great divisions marked in type. These tell their story, and so far as they go they have been carefully verified by long observation. Let a man lose "Health," "Vitality," "Digestion," "Repose," and his face falls in at the points indicated; let him regain these qualities, and the face fills out again; and so with other qualities. There is much in a face. Some complain that the writer's facial maps have too many figures upon them; the truth is there are not sufficient. A physiognomist must know ten times as much as a facial map can show; for there are wrinkles, colours, slight movements and changes by the thousand that have to be observed and read. When all is done, the greatest and last lesson the student of human science can learn is the cultivation of virtue. Knowledge gives power and expands the brow: Will elevates the crown and makes the face a tower of strength; Affections play in the eyes and mobilise the mouth and lips; Emotions have each their facial pole; but the Virtues, the result of moral and religious self-culture, shine above all, and their light rules all lesser lights in the countenance.

As a supplement to this chapter read "Physiognomy Made Easy," by the same author.

HOW WE REVEAL OURSELVES.

As we walk and work; as we pass along the streets; as we smile and laugh; as we speak, shake hands, use the tools of our various trades; even as we eat and sleep, we reveal our innermost selves. We cannot help this. A man may school his face, but his hands will speak for him. He may keep his hands in his pockets, then his whole body will reveal him.

SOME PEOPLE WALK WITH A TETTER; they go up and down several inches with each step. These have many ups and downs in life. They are buoyant and soaring to-day—all their geese are coming out swans; to-morrow all is over—life is not worth living. Other people waddle as they walk. These have something of the duck in them. They are social and domestic; lovers of home; they care for things real and tangible; plenty to eat, warm clothing, good surroundings; they do not aspire; their charities begin at home, and end there. If they have souls they are scarce conscious of such possessions; they live in the day and for the day, and their bodies are more important than their minds.

SOME GO PUM, PUM, with a heavy foot thrown upon the floor, the weight of foot frequently disproportionate to size of body—a boy of twelve with this walk making more noise and commotion than a twelve-stone man. Persons having this kind of walk may

be straightforward and honest; they have generally nothing to conceal. Usually they are good workers, and, in their blunt way, kindly and generous. But they are devoid of tact, and, without evil intention, frequently hurt the tender susceptibilities of their neighbours. It is a walk that indicates ignorance and lack of physical and mental training and culture.

Some Walk Poddle, Pod, Poddle, Pod. These are by nature small-minded and selfish people. They go by little steps along their own way, treading mincingly, keeping out of the mire. There is nothing broad, free, or generous about the development of a poddling walker. He makes a fuss about nothing, is easily angered, will make the slightest action of yours into an excuse for urging claims, withdrawing favours, etc.; he is a little-souled autocrat. He does not walk on the earth as if he had a right to be there; he balances on his feet, and they carry him to and fro, but he does not take hold of the world with them.

Many just Wriggle Along; there is no free movement of their limbs. Perhaps this is sometimes caused in part by the "tie-backs" invented by dressmakers; but it is frequently natural, for there are men who wriggle and knock their knees and heels together, and wear out their pants at the ankles. These, too, are not worthy of unlimited confidence. Ten to one you will find a moral wriggle—an evasive and procrastinating nature, and general meanness of character.

There are those who shuffle along. Their feet are not lifted clear from the ground. Every third or fourth step the foot catches the path, and is pushed forward. Such are apt to stumble in more senses than one They lack aspiration; they are of the earth earthy. A high-brained, clear-faced person never walks with a shuffle.

Some Throw Out Their Legs before them, and drop on their heels. These have always to lift the body forward with the leg that is left behind. Here is a waste of force to begin with; be sure it is followed up by more waste. Persons who move this way take action before they are ready. They are leggy, sprawling people, who are very apt to "put their foot in it;" to get to where they have no business to be; to act incautiously; to grasp more than they can hold.

The opposite type are the cautious men, who carry the body well forward, its whole weight being on the leg that is foremost. These see just where they will place the next foot before they bring it forward. As their walk, so their actions. They look well to the front and all round. When they cannot see their way they feel it. They are prudent men, conservative, saving in money matters, reserved in speech

Each Set of Faculties Has Its Own Walk. Ambition turns the toes slightly outward, and gives a free, swinging movement to the limbs, and a high carriage to the head. Little, flint-skinning, penny-wise, peddling people turn the toes inward, and wear off the inner part of the boot heel the first. More generous natures throw their weight outward, and wear off the outer side of the boot.

Some phases of Approbativeness give a strutt to the walk. Vanity throws the shoulders back, and displays linen and jewellery. A vain man walks as if he had some effect to produce; he is self-conscious, and the eyes of the world are upon him. His step is short, and there is a kind of bounce in it. His very walk irritates his neighbours, and makes them inclined to take him down a peg. Self-Esteem throws the head back and the chin up. Large Self-Esteem might tumble over a wheelbarrow. Benevolence and the religious feelings throw the head forward, the neck and shoulders going with it; while the cogitating faculties throw the head forward, leaving the body erect. The favourite attitude of Napoleon, when planning his strategies, was standing with body erect and head thrown sideway and forward. He was once betrayed by his attitude at a masked ball.

The firm man, especially if he has a due share of conscience and dignity, walks erect, with an easy stride. His foot comes to the ground all at once, the weight falling along the central line of the foot—neither inside nor outside, neither on heel nor toe. The movement of the leg is not of the hip, knee, or ankle specially, but is evenly distributed along the limb. A person with this walk can go a long way without much fatigue. The easiest walk goes with the most useful character.

THE GOVERNOR OF AUCKLAND GAOL, some years ago, asked the writer what kind of crime this or the other man would be likely to commit. The answers in every instance proved satisfactory. "Can you tell anything of a man without seeing his face?" asked the governor. "In many instances, yes," answered the writer. "What is this man in for?" The man alluded to was about thirty paces ahead. "Most likely for wife-beating, or crimes of violence." "Right," answered the governor; "he has been here twice for murderous assaults, and even here he is a most irritable and dangerous man."

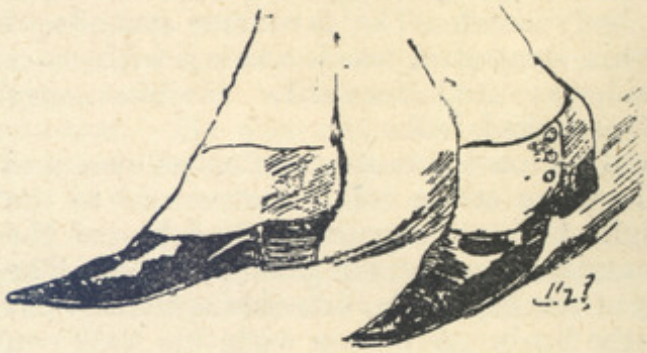
The answer in this case was arrived at by study of form, back view, and especially by the legs and the walk. How does a tiger walk? It puts its foot down gently, and lifts it with a twitch inward that would throw mud upon the other leg if walking in mud. It is narrow about the hips, and twitches its posterior from side to side with each step. The narrowness, the movement of the posterior, the twitch of the feet were all perceptible in this man; hence the deduction. Hot-tempered people may be known by the way they attach mud to their pants and underclothing.

A GLIDING WALK reveals a secretive, sly nature. The person who moves thus is much more likely to surprise your secret than to reveal his own. American Indians and Asiatic Thugs have this walk. It is also the walk of carnivorous animals. It is a kind of stealing along on the balls of the feet. For this purpose many animals have padded feet. The subject of walking is a very wide one, and much may be learned by studying it. A writer in *Cassell's Magazine* contributes a brief article on "Characters of Feet" so appropriate, and having in it so much truth, that it is well worth quoting in full:—

"The use of feet is more characteristic than the feet themselves. Of course there is some character even in the shape. There is the common and careless flat foot, and the neat foot, and the vain foot, and the quick foot. In Herrick's old poem the whole portrait of a dainty, white-slippered girl is suggested by the words—

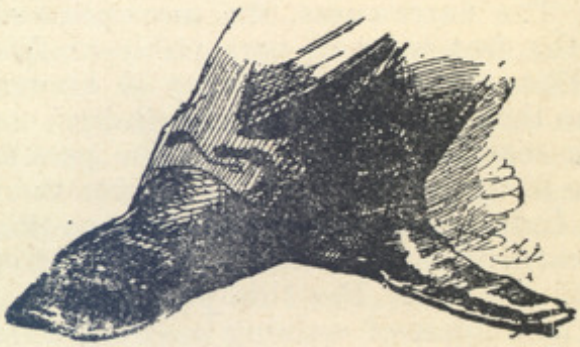
Like mice, beneath her petticoat,
Her little feet went in and out.

"But the distinctions of character are not seen really in the feet themselves, but in what their owner does with them. Sometimes it is significant that their owner does not know what to do with them. He is vulgarly, defiantly self-sufficient, and despises ceremony, so when he smokes a cigar he puts his feet on the mantelpiece, out of the way. Or he is a country bumpkin, painfully self-conscious, so he stands on one foot, and then on the other, and shifts them about, perplexed what to do with them, as ill-bred folks, when they sit idle and sociable, are perplexed by possessing a pair of hands. On the contrary, the fop—whose feet are clad without spot or spec, and regardless of expense—knows very well what to do with them; they are part of an exhibition which is his constant care. In general, it is a sign of vanity to thrust forward habitually a neat foot when one is at rest. A conceited man nurses a leg and admires a foot, which he twitches and twirls beneath his delighted eyes—quite unconsciously, and in a different manner from the fop; for the vain man thinks of the effect produced upon other people, but the conceited man is satisfied with himself, without any regard to the world of ordinary mortals who may chance to be observing him.



THE FOP.

"Very different is the generous mind of the philanthropist, who thinks constantly of the rest of the world, and not of himself. There is nothing cramped about any of his ideas or of his possessions. He forgets such small matters as fashion and details of appearance. Except on state occasions, he considers neatness to be a hindrance; everything about him is large—from his benevolent schemes down to his well-worn shoes.



PHILANTHROPIC.

"His stand is not alert, but patient, well set on the ground; he is ready and steady; he waits to give what he can, and to do what he can, and, while he thinks of weighty matters, personal details are forgotten. He may walk flat-footed in old shoes; insteps and heels are infinitely beneath his consideration. So his foot is not of the type that the dancing-master believes to be the one thing necessary for a gentleman; but he has already flattened injustice under his feet, and the horror of the dancing-master can never reach his ears.

HOBNAILS.

"This philanthropic man has done a great deal to widen and smooth life's roads for crowds of feet of another type. On the roads he has improved — the hob-nailed boots go more contentedly.

"They (the 'hobnails') are strong, and rather defiant; for instance, they have a defiant way of turning up. They stand straight together, just as their owners as a class stand shoulder to shoulder. Their size and weight are suggestive of possible bad kicks; but their bulk and hard-worn bend are also suggestive of work done, and the country could not thrive, nor the community exist, without the feet that wear hob-nailed shoes.

FIRM.

"The firm foot is the ordinary type in men. A firm walk is a sign of self-control as well as of power. When the shoe thickens so obstinately that the foot cannot bend it, and when the walker does not care what noise he makes, the firmness and power are developing to a degree that may inconvenience weaker or more sensitive folk.

"The weak foot is very common. The stand suggests a knock-kneed body and a mind not strong enough to make the best of life —one might almost say, altogether, a knock-kneed character that is always stepping crooked and going its way with an uncertain gait.

"This is not to be confounded with the weak walk of the man who is always in a hurry and absent-minded, because he

is hurrying up some plans of future work. The hurrying walk is apt to be weak, but it does not betoken a weak character. On the contrary, hurrying feet, whether they walk firmly or irregularly, are always a sign of strong character. The weak-footed hurry often belongs to the man whose work is mental; the hurrying man whose calling demands physical activity is more likely to be firm, as well as brisk.

WEAK.

"An indolent walk is frequently a sign of empty mind and weak character. A gliding, pausing, foot-bending, stealthy gait betrays finesse, or strategy, or calculation, or cunning, or—as the last degree—the sneak.

"In conclusion, it is remarkable that modern habits of dress have altered the shape of the foot. The feet of savages are mostly flat. The heel of the shoe seems to have formed the instep. Of course, the arch is over-developed, and the foot destroyed, by the too high heel—against which the doctors have long protested. Again, in the antique the front of the foot is loose and broad, and the great toe parts from the others with a division as decided (though, of course, not as broad) as the parting of the thumb from the fingers of the hand. This division was used for the strap of the sandal. If we take the antique for our type of beauty, a pointed shoe is utterly unnatural. Very rare is the fine form of a foot that has kept straight on the inner side not bent by efforts to be cramped to a point. Perhaps this straight foot that has never been distorted ought to be taken as a sign of common sense; for, if one judges rightly, the distortion caused by a craze for pointed toes is as bad in kind—though not in degree—as the malformation of the foot which Chinese ladies allow their children to suffer in infancy, so that they may grow up to have a proper Chinese deportment—supported by a maid, or a stick, or a friendly wall."

THE SNEAK.

CHAPTER XI.

HANDS.

THE hand has always been more or less studied as a revealer of character. Fresh impetus has of late been given to this study by some French and English writers. These, however, seem to follow each other's lead rather than to observe for themselves. For twenty years your writer has closely studied hands; each client—male or female, young or old—has to present the *back of the hand* for inspection.

LONG STUDY HAS BROUGHT TO LIGHT many things not mentioned in any of the manuals. Health, temperament, breed, relative proportions of body, warmth or coldness of affections, predisposition to certain diseases, general form of brain, and talents in this or that direction, are easily discovered in the hand. For many years the writer has been in the habit of giving public descriptions of the main outlines of character of persons by a study of the form of hand alone, the rest of the body being hidden, several subjects being put behind a screen in the writer's absence.

THE GREAT PRINCIPLE THAT UNDERLIES the study of hands is homogeneity. What the body is the hand is. Is the body short and stout? The hand will not be long and slim. Is the wrist thick? The neck will probably be thick in proportion. Are the fingers long? Is the palm small? Then the limbs are long and the trunk relatively small. But these items of form are nothing compared to what the hand reveals. It is not the writer's intention to more than outline the subject in this brief chapter. Illustrations are being gradually acquired for an original work upon Hands, in which all the writer's experience will be embodied for the benefit of the general public. Palmistry, or Chiromancy, may tell something of our past or our future; but, if so, the language in which it is uttered must be vague and difficult, for a dozen Palmists give you a dozen different fortunes.

CHIROGNOMY: STUDYING HANDS by form—looking at the back rather than the front—is capable of being developed into a science that can lend valuable aid to the phrenologist and physiognomist. The hand has more character in it than all the organs of the body put together, except the face and head. Parisian glovemakers produce a special glove for the Yankee—not for the American—for the lean, bony, wiry, active, nasal-speaking production of some eastern States. The gloves for these men have long fingers and small palms, and if we compare hands and bodies we find that, as the hand runs to fingers, the body runs to limbs. The body has but little trunk, the hand but little palm. Catarrh is a common complaint; pulmonary diseases and dyspepsia carry off more than half the community.

The Dutch are the opposite of the Yankees. Dry cold and dry

heat produces the lean, wrinkled, and active type. The Dutchman lives below sea level in his Hollowland; he has plenty of rain and a moist air; he stays at home and minds his business. He grows a large trunk and thick, short limbs; he has plenty of abdominal viscera; can eat plenty, drink plenty, and digest his food; he can sit down without thinking about a cushion; and, if we look at his hands, we find the palms thick and large, and the fingers relatively rounded and short.

By such Comparisons we Learn how to study form and character by form of hand. The lean, knotty, deeply cleft, long-fingered hand is that of a lean, wiry, and active man; while the thick, short-fingered, Dutch hand is that of the plodding, home-loving, sleepy, but shrewd Hollander. The short, thick hand is conservative, selfish, averse to travel and change. Hence the Dutch concentrate and give us a greater population to the square mile than is found in any other part of Europe. The Yankee hand is radical, frequently liberal, fond of travel and adventure, will migrate and spread, and cover the earth with gaudy-looking clocks, wooden nutmegs, pine hams, and gimcrack novelties. The Dutchman remembers the past and hopes for the future. The Yankee has no past and no future; he is as sharp as a needle; he looks well about him, and lives for to-day. Some writers on the hand make out that the knuckley hand is philosophical; if so, how is it that the Dutchman is so much more philosophical than the Yankee? A knuckley, bony hand is that of the Motive (Osseous) temperament. and is much more likely to be the hand of a worker than a thinker.

A Soft Hand, with Small fingers and thumbs indicates a weak mind and a character that can be influenced in any direction. If, in addition, the hand is short and podgy, the owner of the hand will probably be sensual and fond of good living.

50.—Motive Hand.

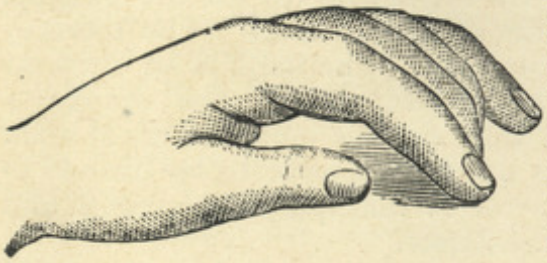
Firm and fibrous fingers, with the knuckle lines distinctly marked, belong to decided, active, and energetic characters, to men and women who know their own minds and live their own lives. When, in such instances, the thumb is large, the will power and intellect are relatively stronger. There is a recognition of the thumb as a sign of controlling power in the words "under my thumb."

A firm, cool, well-formed hand, a good hand for cooking and making butter and confectionery, tells of efficiency and longevity; a moist, clammy hand, too hot or too cold, has the opposite story

to tell. Young men and women selecting partners in life will do well in noting each other's hands. There are hands so positively unhealthy that we shrink from their touch; they remind us of reptiles; the exhalation from the palms have a foul odour. The idea of eating food prepared and handled by such hands is disgusting. It is dreadful to think of being linked in matrimony to the owner of hands of this kind.

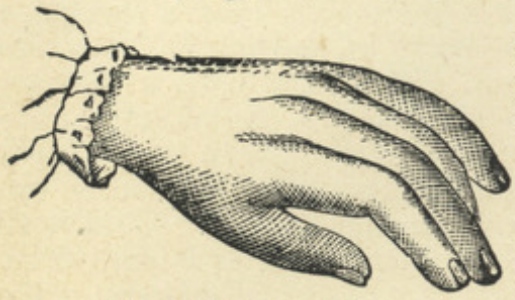
Anyone who has a pair of fishy or reptillian hands ought to attend to medical and hygienic treatment until improvement in general health makes the hands normal again. The unfortunates in whom this condition is chronic ought to touch no food except what they eat, and ought not to think of married life.

THE THINGS THAT FIRST DEMAND ATTENTION in the study of hands are size, proportion of parts, hardness or softness, quality, flexibility. Some hands are like claws, and the last joints scarcely bend; intelligence and mental quickness ought not to be expected from such hands. They are useful mostly in productive labour. The axe and the plough are their tools; theirs is frequently the hand of the motive temperaments, the Osseous and Muscular (see Illustration 50). The rounded hands, full and fleshy, with thick and large palms, belong to the vital temperaments, Vascular and Abdominal. When we see such hands we connect them with the temperament to which they belong, and know what to expect from them. If we expect them to do much hard work we shall meet with disappointment.



51—VITAL HAND.

Fig. 51 presents the fleshy hand of the vital temperaments. If it is thick and wide in the muscular portions of the back of the hand the chest and shoulders will be large, and the vascular temperament the leading one; if the fleshiness is in the thumb, balls and the palms, and between the joints of the fingers, the abdominal region predominates. From a careful study of the hand the proportions of the body can generally be estimated. A large hand is sometimes found attached to a small body, and a small hand to a large body; these are rare cases. In the former case there has been some arrest of development; the small man is a member of a large-sized family, only he did not grow. When the hand is small in proportion to the body, the owner of the hand is generally a member of a degenerating family. A large hand is more useful than a small one, and manifests more character and



52—MENTAL HAND.

power; no one need be proud of a small hand. One might as well be proud of a small head.

Fig. 52 is the delicately-formed hand of the mental temperament. It is thin, light, active; generally plastic and artistic; sometimes, however, the fingers are thin and pointed. The owner of the hand is a poetical day-dreamer rather than a worker. When this hand is firm and clearly cut, when it is highly flexible, and yet strong for its size, it is the hand of a very capable person—a leader in society and a useful worker in some capacity. We might be justified in thinking that the smallest hands would do the finest work. This is contrary to experience; for large hands perform the most delicate manipulations in all trades. Small hands break what large hands make. Delicate machinery and fragile pottery, and all other things liable to be crushed, damaged, put out of order, and broken, are safer in large hands than small ones. A stumpy-fingered, undeveloped hand is frequently found connected with a destructive and careless nature.

THERE IS NO PART OF THE HAND that does not tell something of character. A study of thumbs is almost as good as a study of heads. The thumb is placed in opposition to all the fingers. Human beings are the only owners of real thumbs. The monkey hooks on with its hand; it cannot grasp. The hand is an ultimate of the hoof, a final development of the claw. The monkey's hand has fairly good fingers, but they are not independent of each other. Indeed, in human beings the fingers have to be trained to act independently of each other—as in manipulating strings and keys of musical instruments, for instance.

The thumb is naturally independent; we can close the hand without bending the thumb even if we have had no manual training. A little thumb goes with a poor intellect and weak character; a large and well-formed one tells of power. Constructive workers have thumbs of a certain shape; so have artists, and so, too, literary men. By the nails, and especially the thumb nails, the shape of brain may be determined; indeed, the study of the hand requires a volume of its own; a chapter in a popular manual can only introduce it.

"It is a profound study. No instrument devised by man compares with it for completion. It is a hammer, a vyce, a forceps, a hook, a spring, a weight; it pushes, draws in, and the fingers alone contains elements of chisels, gouges, and all the tools a sculptor requires in modelling. From the elbow to the digital extremities its movements are produced by nearly fifty muscles. So complicated is the cordage of a human hand that an expert anatomist can hardly keep in remembrance its intricate mechanism. With it all the emotions of the mind can be both manifested and intensified. How would a Frenchman talk without his hand? The hand is the prime minister of the brain; it is the soul's agent in the accomplishment of its designs; it is a wonder of wonders."—*Anon.*

CHAPTER XII.

VOICE AND LAUGHTER.

THE majority of living creatures produce some kind of tone; some sound by which they are recognised.

"The grand eternal bars in nature's anthem," is sung by the ocean on many shores, and the other parts of the music are not wanting. All nature is more or less vocal. "Mute as a fish," we say sometimes; are we sure that fishes are mute? Water conveys sound more rapidly than air; possibly the fish, mute in air, can easily enough make itself heard in water. Generally speaking, a creature that produces a sound tells something of its character thereby. The roar of the lion differs widely from the low of the heifer; the howl of the wolf is a more terrible sound than the bleat of the lamb; so is the hoarse cry of the hawk compared with the cluck of the hen. The laughter of the hyena suggests at once an untamable nature. The sharp hum of a hive of angry bees is a note of warning to some ears. The wasp, mosquito, and gadfly have unattractive voices, and so has the serpent. We seek the companionship of some of the charming members of the feathered tribe solely on account of their vocal powers, either as singers or imitators of speech.

A voice is a good guide to character. When the voice is strong there is some other kind of power behind it. When the voice is clear there is some other kind of clearness behind it. Says Socrates to a boy whom his mother had taken that the philosopher should estimate his character—"Speak, my son, that I may see thee."

While a man is silent he may be a wise man or a fool, but when he speaks he soon tells which he is. This, too, not so much by what he says as by the way he speaks, and the sound of his voice. Some voices dwell on the "S" so much that the speech is a continual ses-es-es-z. Scandal-mongers and economisers of truth frequently have this hissing voice. Some dwell on the "R," and their speech r-r-rar. These are combative voices, fond of argument, rough, rugged, ready for a dispute at short notice, willing to wrangle or to fight.

THERE ARE THREE QUALITIES ABOUT A VOICE; pitch, timbre, and loudness. In human beings the average pitch of the voice corresponds with the height of the brain; the timbre with the affectional and emotional character; the loudness or fulness with the physical force. The boy's voice is shrill and hard until the advent of manhood, when the voice breaks, and afterwards becomes deeper and fuller, owing to the added activity of the basilar brain and the forces of manhood. The girl's voice does not break; but its timbre changes, and it softens, rounds, fills, and sweetens as womanhood comes on, and touches chords of human feeling that it could not reach before. A grand thing in a woman is a low, rich-toned, musical voice. The woman who has such a

voice can charm, and ought to; for a voice of that kind accompanies and indicates charming qualities, sympathy, affection, and a cultivated mind.

A high pitched voice goes with a high brain and good moral qualities very frequently. But sometimes the owner of such qualities is too exacting in her demands, and tries to become conscience-keeper for all her family; she needs to cultivate the sympathetic qualities, lest she become a scold. Scolding is generally done in a high key. The real, sharp, thin-toned, penetrating, scolding voice is a very unpleasant one, and ought never to be cultivated. It is quite as bad as the r-r-rar voice in a man, or its equally unpleasant n-n-ning voice. A voice too highly pitched or too loud is not the voice that makes life pleasant for its owner or others. A man's voice, if too deep, always in a rolling bass tells of strong passions, much animal feeling, and selfishness. It may be accompanied by great energy of character; but we want something else in our friends besides energy—sympathy and kindly feeling, for instance. A woman in selecting a husband, and considering voice as one factor, ought to listen for middle tones. If these predominate the man is fairly harmonious. When the voice of a man is too high in pitch and too thin in timbre, the owner of the voice is weak in character; he has not enough force. He may strutt and fume; may get on his dignity; may even talk a good deal about what he will do; but he is like the shrill voice bantam cock, or the weak, yelping terrier—he cannot do much when his qualities come to be tested.

The Voice is Influenced Primarily by the general character, and secondarily by present state of mind. We have no need to understand a man's language in order to know what mental faculties are expressing themselves. Love, anger, warning, argument, pleading, mirth, song, business, and command have each their tones, and these are common to all languages. Gestures and tones form a universal speech. A man acquires a voice in accord with his most active faculties. The auctioneer puts his "Going, going, gone," into an after-dinner speech. The logician and mathematician expresses himself by dimensions and sequences, and makes each syllable a step towards the final demonstration; his tones are those of the lecture-room; he talks as if writing every sentence. The Soldier, Physician, Lawyer, and Preacher have each their voice and manner, proclaiming their respective professions. The soldier's words strike like bullets—his utterances are few and to the point; the physician's words are cautious, reserved, non-committal—they are uttered in an oracular tone, and may cover much knowledge or a wealth of ignorance; the lawyer's words are numerous and more fluent—they enwrap his subject matter in many folds of verbosity, and are uttered in confident tones; the preacher is apt to drop into a sacerdotal drawl and breathe upon his words as if they were written upon tissue paper, and had to be blown to where they will stick—his tones are the exact opposite of those of the soldier.

VOICES ARE INFLUENCED BY CLIMATIC CONDITIONS and by the laboriousness or otherwise of life. Chronic catarrh makes the tones of the down east Yankee nasal. The languages spoken by northern peoples, who have to contend with frost and snow, and wring a livelihood out of an unwilling earth, are full of consonants and hard in sound; those spoken by southern and semi-tropical peoples are sweet, song-like, full of vowels, melodious. Mr. Froud, when in Australia, said to the writer that the first thing that struck him was the melodious voices of the children. The reason for this is not far out of sight. Life is easy in Australia; there is nothing to harden the tones. The air is mild, and people dare open their mouths. Hence the rising generation speaks with its lips and palate, while the elder people, who have faced harder conditions, speak more with the throat and teeth, laying more stress on the consonants. When a northern nation sends emigrants to southern and warmer climates, the language of the emigrants softens materially in two generations. With the softening of the speech, however, there is a rounding and softening of the framework of the body, accompanied by a love of sport and play, and a dislike for close application and hard work. Hard workers have generally some ruggedness of speech, some angularity of form. It will not pay to become too soft either in voice or anything else. The North beats the South in the battle-field and in the labour market.

We reveal much of our real selves by smiling and laughing. When we are at ease and in the society of our families and friends, and the subject matter of conversation is agreeable, we are off guard, and in smiling and laughing we are natural, having nothing to conceal. Hence laughter reveals the soul perhaps more than speech does. What we are must display itself in one way or another; if not in one way more strongly in another. If the face may not tell the truth the hands and feet will; if the tongue lies the laugh contradicts it. The face may be taught to wear a diplomatic smile, but the eyes shine out above such a smile and declare it to be a thing assumed.

WE LAUGH IN ALL THE VOWELS. The boisterous "ha, ha," the full "ho, ho," the snickering "eh, eh," and the grunting "ugh, ugh" may all be heard in the streets and taverns of any city or village, where people have time to laugh. The laugh that shows the teeth and throws the head back is free, honest, open, and tells of generous and social nature; it is the "ha" or the "ho." The internal cachinnation "eh" is secretive and conservative; it may be envious and bitter; it is always unpleasant, and the reverse of generous and free. The throat laugh, the "ugh," is the kind that a Red Indian might utter when he had stolen upon his foe, murdered him in his sleep, and attached his bleeding scalp to his belt. In the laughter of some low loungers and criminals there is a hard, jarring tone, that arouses antagonism in the hearer and reminds the zoologist of the cry of the jackal, the bark of the dingo, or the laugh of the hyena.

IF THERE IS SOMETHING DISAGREEABLE ABOUT the smile or laugh, there is also something equally disagreeable about the character. There is the cynical smile, the contemptuous smile, the envious smile; the sharkish smile may be seen now and then —it is very different from the sheepish simper. It is far easier to understand a smile than to describe one. A smile is a movement of the Orbicularis Oris muscle. This movement lengthens the lips, and generally turns them a little outward, showing a larger lip surface. A mirthful smile draws the lips up at the corners; a silly smile draws them up too much; a friendly smile elongates both lips about equally, and draws them neither up nor down at the corners; a loving smile fills out the lower lip more than the upper one; a contemptuous smile shoots out the upper lip. The smiles that draw the lips down at the corners are none of them good. The smiles of treachery, cunning, envy, jealousy, are all accompanied by a down-draw of the corners; and the smiles of cruelty and selfishness by an indraw of the lips, making them into a thin, curved line. A real smile lights up the whole face; it springs into the eyes, smooths out the eyebrows, ripples down the cheeks, expands the lips, draws up the chin, and enlarges the whole body, and lightens every movement. It is the reverse of a frown, which contracts and draws down every feature of the face. The frown is a sign of pain, and pain contracts; the smile is a sign of pleasure, and pleasure expands. Smiles and laughter conduce to health, pleasure, and virtue in ourselves and others; frowns and harsh tones tend to shorten life, and to make it less worth living. Carlyle speaks plainly on the morals of laughter in "Sartor Resartus." Says he, describing the Professor's laugh:— "Gradually a light kindled in our Professor's eyes and face—a beaming, mantling, loveliest light; through those murky features a radiant, ever-young Apollo looked; and he burst forth like the neighing of all Tattersall's—tears streaming down his cheeks, pipe held aloft, foot clutched into the air—loud, long-continued, uncontrollable, a laugh not of the face and diaphragm only, but of the whole man from head to heel." And again—"No man who has once heartily and wholly laughed can be altogether irreclaimably bad. How much lies in laughter, the cipher-key wherewith we decipher the whole man! Some men wear an everlasting barren simper; in the smile of others lies a cold glitter, as of ice. The fewest are able to laugh what can be called laughing, but only sniff, and titter, and snigger from the throat outwards, or, at best, produce some whiffling, husky cachinnation, as if they were laughing through wool. Of none such comes good. The man who cannot laugh is not only fit for treasons, stratagems, and spoils, but his whole life is already a treason and a stratagem."

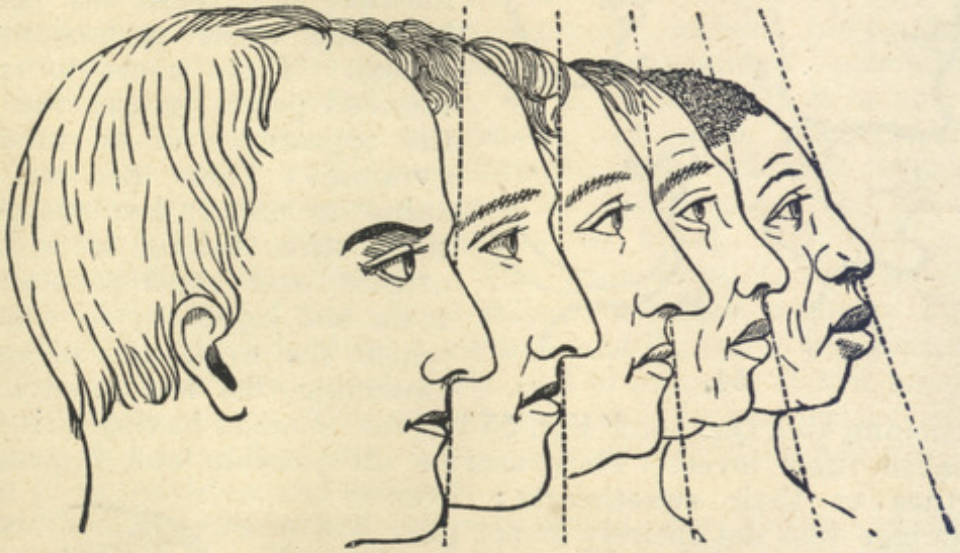
CHAPTER XIII.

A CHAT ABOUT CHINS.

FROM any point of view the chin is an important feature of the face. It is like the thumb to the hand: the moving feature in

opposition to the fixed ones. Indeed, to a student of comparative anatomy there is a marked resemblance between the termination of the wrist in a hand and the termination of the neck in a head and face. Where the hand is only a paw the head is far below the human stage, and there is no chin. Nature seems to promise chins and thumbs at about the same stage of the ascending scale of creation, but she does not really give either one or the other to any creature below the human. She seems to have laboured through countless ages, and through myriads of forms, before perfecting her ultimate design in producing a creature with a real hand, a real face, and a perfect brain; and even yet, amongst humans, she has not fully realised her ideal. There are few people who are perfect in form of head, face, and hand.

SOME PEOPLE HAVE RUNAWAY CHINS. There is nothing to support the lower lip, and it sags down; the upper teeth, too, overhang the lower, and give the face a weak appearance. Fig. 2 in Illustration 54 is a weak chin of the kind named. We have not far to go in any street before we see some weak-chinned person. Sometimes the forehead, too, is flat, and receding also, the face being weak both top and bottom.



53—GRADES OF POWER.

A weak chin denotes lack of courage, and frequently lack of moral courage; and a weak forehead tells of lack of intelligence; we must not, then, expect too much from a person who has both these signs of weakness. Illustration 53 shows a gradual decline of power from the Caucasian to the Negroid forms of face. A slightly convex face, one in which chin and forehead both recede a little, may belong to a person who is good for a spurt, active in body, and brilliant and clever in mind; but when staying power and endurance are required look out for a firm chin; and when depth and solidity of mental attainments are needed the forehead must not slope backward too rapidly.

SCANDINAVIANS, GERMANS, RUSSIANS, AND SCOTCH have, as a rule, strong chins, while the inhabitants of Southern Europe have

weaker and softer ones. Even the English appear to be losing squareness and solidity of chin. The percentage of strong faces seen in any crowd is not so great as it was twenty years ago. Our youth grow larger bodies, and the average duration of life is greater, but the hardihood and courage which used to characterise the British cannot be regarded as an increasing quantity. In any struggle for racial supremacy, whether by battle or by industrial efforts, the stronger chinned race will take the lead. Our children, then, girls as well as boys, ought to be taught to close their mouths firmly and to develop the energy and courage that forms a good chin, and the kind of character indicated by such a chin. While forming character we are also building up the signs that indicate it.

Many qualities are seen in the chin besides those shown in the frontispiece in Nos. 129 to 152. There are loving chins, hoping chins; Shakespeare speaks of an "amorous chin." There are mean and miserly chins, hard, upturning, as if going to meet the hooked, avaricious nose which overhangs the lean, indrawn lips. See 3 in Illustration 54; and chins contrasted, Fig. 58. There are chins that concentrate and idealise, and yearn for perfect love and other perfections to match. These come to small rounded points, giving the face the appearance of an inverted pyramid. These are not the chins to endure hardness, but they often belong to refined, artistic, and good people: to men, and especially to women, whom the world can ill spare. Channing, 39, has a chin approaching this type, and Fig. 55 has it. Women having this chin idealise their loves. They ascribe all possible and impossible virtues to their sweethearts; even marriage does not entirely dispel their sweet illusions, and if they become widows they again think of the virtues and endearing qualities of the much loved departed.

54.

A chin like 4 in Fig. 54, or like 2 and 4 in Fig. 57, can easily form new attachments, and love as heartily a second time as the first. M'Leod, Fig. 3, had a grand chin for real and practical life; Manning, Fig. 5, has a fine, square-pointed chin, denoting both fineness of structure and endurance, both a high ideal and much capacity to work for its attainment. Liebig, Fig. 4, had a resolute chin, a jaw that almost forms a right


55—CONCENTRATION.

angle by its projections downward and outward. Fig. 56 shows this form of chin very plainly. These two boys differ widely in type, and are fitted for occupations of an entirely different nature. 55 ought to become a scholar and a literary or artistic worker; 56 needs a stirring life calling the commercial and executive faculties into play. One is peaceful and patient; the other is ready for adventure, exploration, and warlike exploits.

56—Resoluteness.

The Loves and the Energies Contend for Mastery in the chin. The former are shown mostly in the fleshy parts; the latter in the bony parts. In a large chin there must be both flesh and bone. When there is too much flesh—a series of baggy folds, as in the chin of Caligula, Fig. 7—there is a tendency to sensualism and gluttony. An enlarging and doubling of the chin, filling out its shape, as in 4, Fig. 54, is a sign of abundant vitality and warm affection. These signs frequently appear in wholesome matrons as they approach middle life; they then suggest good cookery, domestic management, economy. The doubling of the round chin, as in 4, Fig. 57, is a mark of economy, but not of meanness; of wise management and desire to make people comfortable. As the chin widens the range of the affections appears to widen also. The small chin, with rounded tip, desires to be loved, and idealises and concentrates its affection. The wide chin, 1, in Fig. 57, desires to love, and if one object fails it will seek another. The little chin thinks of love in a cottage and domestic enjoyment; the large one wants a social circle, and to minister to the enjoyment of many guests. The wide double chin is hospitable: is a good sign in host or hostess. People having poor chins are not as a rule good providers and caterers.

Economy, Independence, Subservience are shown in the region of the chin. The signs of economy—a little fold under the chin (see 4 in Fig. 54)—is easily recognised; the signs of subservience are on each side of this sign. They are small folds of flesh connecting the chin and neck, and hanging under each side of the lower jaw.

Comparing small masses with large, they are like the "dewlap" of a cow hanging to neck and chin. In youth there is no such formation under the chin. The sign of independence, a prominence of Adam's Apple, is more marked in youth. As we advance in years, and find out that we are not masters of the universe, we become more willing to be used and less self-assertive, and the signs of that change show in the chin. The change is really caused by a slackening of the superficial muscle, the Platisma Myodes. It is no longer tightened up by the chin being perked forward or thrown up with pride or conceit, and so sags and forms the folds.

A diplomatic chin has bone enough to give strength and purposefulness, but under and around there is flesh enough, and many a fold and wrinkle. Chin 2 in Fig. 57 is a chin for state-craft and war-craft. Men who have this kind of chin are not easily overreached in a bargain or mastered in a battle. Lord Beaconsfield had a remarkable chin of the kind named, and Prince von Bismarck has another on a larger and more powerful scale. There are many wrinkles in the chin of Gladstone, but they are not of the curved and cunning sort.

The chin 1 in Fig. 54 is a fighting and enduring chin. It is lean, hard, angular. Many noted pugilists have this form of the feature.

57.

58—A CONTRAST.

It goes with the Osseous temperament; you may bruise your hands upon such a chin and scarcely hurt the feature. In selecting men for exploring expeditions, and hard, trying labours, employers ought to pay particular attention to the chin. A round, soft chin will not work hard, and a poor, weak one, however willing, cannot endure hardness.

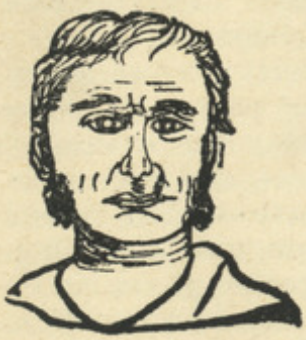
In Fig. 58 we have two types of chin widely differing. The first is shrewd, commercial; more than that, it is cunning and ready for fraud. The second is weak, but belongs to a man who fancies he "knows a thing or two." Suppose the second has some money, and the first has a fund of experience, and the two go into partnership; how long will it be before the conditions are reversed, viz.—before the first has the money and the second the experience? Wolves eat lambs everywhere.

NOT LONG AGO A NEW ARRIVAL FROM the West of England, a farmer, who had some capital, called upon the writer for a phrenological consultation and advice. In his written notes he was warned to be careful; to put his money in a bank for a while; to work, and get to know something about the colony before entering upon any enterprise involving the investment of his funds. "For," was written, "amongst some sections of the mercantile community of Melbourne you will be like a sheep amongst wolves." Alas! the sheep did not take the advice; a wolf swallowed his thousands, and he is now in gaol for the crime. Even such poor satisfaction is rarely obtained by a financial sheep; the wolf keeping safe inside certain fences called laws.

In the chin Nature writes her signs of longevity. A poor chin tells of a weak heart, poor circulation and digestion, lack of

buoyancy and endurance. We may, then, easily infer that a chin denoting the prominence of these qualities is a sign of longevity. Even the projecting chin that inclines towards the nose—(see 3, Fig. 54)—tells of the toughness that keeps life in the body. Little old people, whose bodies have shrunk to less than one hundred pounds weight, and who are yet cheerful and active, have frequently this form of chin. Mrs. H. B. Stowe, at over eighty years of age, is vivacious and cheerful, though not larger or heavier than a girl of twelve. The Beechers for three generations have had good chins; even the dyspeptic Lyman Beecher had a firm, square, enduring chin.

IT IS POSSIBLE TO HAVE TOO MUCH OF A GOOD THING. The chin is conservative; heavy chinned men do not advance with the times. Fig. 59 shows an autocratic and high-tempered chin. This man will not be interfered with, will manage his own affairs; his word is law, he must be approached hat in hand. Fig. 60 is a despot; he is not amenable to reason. If he has not power over the lives of his subjects and servants, it is because he is living too late. He is not at home in a free and civilised community. He is an atavism. Although the bull-dog has no proper chin, he has a very strong lower jaw, and his human prototype and companion is usually a strong-jawed and chinny mortal. Fig. 61 does not seriously caricature the human associate of prize-fighting bull-dogs. Birds of a feather flock together; noble dogs associate with noble men. If a good dog gets into bad human company, it is not long in feeling ashamed, and acquiring a sidelong and unhappy look. Tell me what kind of company you keep, what kind of dogs you like, and I will tell you what you are. A Deerhound, a Newfoundland, an English Mastiff, a St. Bernard would not be at home with a cane and eye-glass masher, nor with an out-at-elbows Poverty Corner lounger.



59—AUTOCRATIC.

60—DESPOTIC.

61—CHINNY.

CHAPTER XIV.

HEALTH SIGNS.

IT will not be fair to conclude this manual without giving a few of the health poles of the face. Some of the health signs will be gathered from the frontispiece, but Fig. 62 gives them in a more definite form. The frontispiece treats mostly on character signs; the final illustration is meant to bring out the health signs as a

separate study. A depression of the nervous system in the region of the stomach, or a chronic inflammation of the solar plexus, will be shown in the face by a falling-in of the face in the regions of "Health" and "Vitality" (see frontispiece). But this depression is apt to specially affect one organ more than another. A study of Fig. 62 enables the physician to see which of the great organs is weakest and which is likely to suffer or has actually become affected.

The region of N, Fig. 62, is that in which a failure of nutrition is first apt to show itself. If behind the ears and round about and below them gets white or grey, there is defective nutrition and something seriously wrong in the body. People advanced in consumption get thin and deadly white hereabout; so long as the ears are a good colour, and the region behind and below them has a natural appearance, there is no immediate danger of losing life. Parents ought to keep an eye on this region in all delicate cases, and physicians ought not to neglect it in diagnosis.

Some Medical Men Have an Eye to Constitutional peculiarities. Said one, when invited to a dinner party, "I have fifteen cases to visit to-night, and so cannot stay the evening." The party proved more attractive than the patients, and later on in the evening the doctor said—"I ought to have visited fifteen patients this evening, but will now leave them until morning. My doing so can do no real harm, for nine of these no physician on earth can cure, and six of them will defy the medical profession to kill them." That physician knew something about constitutional symptoms as well as diagnosis of special and temporary conditions. From time to time members of the medical profession have taken lessons with the writer on this subject. For want of such knowledge grievous blunders are frequently made.

62—Health Poles.

The point V, Fig. 62, just behind the bony knob called the "Mastoid Process," is the phrenological organ of Vitativeness, or Love of Life; and its fulness or otherwise ought to be considered in a diagnosis. There are some thin and worn men who appear as if they had not much time to live, and yet they keep on living in a most unaccountable manner. To all appearance they ought to die, but they do not. A study of these men would reveal the presence of this organ, and

organ implies faculty. There are other men who appear strong and well, and yet when anything ails them they die almost without warning. In these cases love of life is weak. To understand men, to understand ourselves even, to know whether or not we are likely to make a good struggle for life, we ought to study this phase.

The point A, still further back than V, is Amativeness. This shows the relation between the Recuperative and Reproductive faculties. Both are located where we might expect to find them—in the very seat of life.

R, in the same figure, is the pole of the kidneys and renal system. It is just behind the Alveolar Process, and slightly below it. The letter covers more space than is occupied by the facial pole named. When the face falls in here there is a tendency to sluggishness and disease of the renal system. G indicates the gastric region. The faces of dyspeptics almost invariably flatten in this part, while a roundness and fulness of cheek tells of an abundance of saliva and gastric juice. The Parotid Gland is just under this pole. Probably it becomes less as the digestive power decreases, hence the flattening of this region.

The Liver has its Facial Pole in the Region of H. Hepatic difficulties leave their mark in this region. C and P represent the Cardiac and Pulmonary poles. When the heart and lungs get weak there is a flattening of these two regions. We know that a healthy face is generally a full one, and we see, by the study of health signs, why this is the case. By this means we also get a clue to which organ has actually gone wrong, and which is most likely to go wrong. A careful delineator of character and conditions will always warn his subjects of their bodily weaknesses, and tell them how to avoid disease. The writer never gives a description without making such a diagnosis; in many instances the modification of physical conditions is more necessary than anything else.

Frequently, too, people have formed entirely erroneous ideas of life and duty. Sometimes a pale and sickly man wants to know how he must push on with studies, and make his brain do more work, when really what the man wants is complete nerve rest; failures in memory being caused by overwork and nervous debility. The man who would be benefited by a course of study spends his spare time in football; while the one who needs active exercise in the open air spends his time in reading and study. The brain is just as liable to morbid conditions as the body; a mental dyspepsia frequently shows itself by a morbid mental appetite. If the Vital Poles of a face are falling in, or if they are flat to begin with, there is no force to spare for dissipation of any kind, and the dissipation of a hard course of study is frequently the worst possible.

For Want of Knowledge of and Attention to these facial signs the lives of thousands of children are sacrificed annually. The child who ought to study the least is almost invariably the one

who studies most, while the chubby-faced dunce, whom brain work could never injure, will dread mental exercise as a certain nameless person is said to dread holy water or church music. The facial signs tell of two things differing materially from each other—viz., of weakness of an organ and actual disease of that organ. Weakness precedes disease. Disease ever attacks the weakest part, never the strongest. If parents, on account of their children, and young people on their own account, would find out from facial study or competent diagnosis what are their physical defects, which are their weak organs, they would have a chance of taking protective measures. They would be warned in time, and might then take steps to strengthen the weak heart, stomach, or whichever organ is affected, or likely to be so; and might also avoid putting undue strain upon such organ. There are young men who train for athletic performances without knowing the state of the heart. A man whose chin is weak, and whose cardiac poles are flattened, ought to gradually increase heart power by gentle exercises at first, taking more severe ones as he proceeds, but never going to the extreme of trying to perform great feats. Most athletes break down early in life, owing to a breakdown of some great vital organ; few reach old age. Those who try to become athletes and fail, owing to some organic weakness of which they ought to have been warned, are very numerous. Some of them die right out of inflammation of the lungs, or of peritonitis; others get ruptured, contract anuerism, or drop into chronic debility, out of which they never emerge.

How little the majority of people know about health and health signs is all too apparent. And yet knowledge upon these subjects can easily be acquired. In a few hours, or, at most, a few days, a good general knowledge of physiology may be obtained, and in a few more the laws of health and health signs may be learned. We may spend more time in learning a musical scale or a Latin declension than the above important studies would require. On this subject Herbert Spencer speaks most strongly. He says:—"If anyone doubts the importance of an acquaintance with the principles of physiology as a means of complete living, let him look around and see how many men and women he can find in middle or latter life who are thoroughly well. Only occasionally do we meet with an example of vigorous health continued to old age; hourly we meet with examples of acute disorder, chronic ailments, general debility, premature decrepitude. Scarcely is there one to whom you put the question who has not, in the course of his life, brought upon himself illnesses which a little information would have saved him from. Here is a case of heart disease consequent on a rheumatic fever that followed reckless exposure. There is a case of eyes spoiled for life by overstudy. Yesterday the account was of one whose long-continued lameness was brought on by continuing, spite of pain, to use a knee after it had been slightly injured. And to-day we are told of another who has to lie by for years, because he did not know that the palpi

tation he suffered under resulted from overtaxed brain. Now we hear of some irremediable injury which followed some silly feat of strength; and again, of a constitution that has never recovered from the effects of excessive work needlessly undertaken."

[THE END.]