

perceptive faculties of the mind with the external world or Nature. All our ideational activities, appertaining to man as an individual emotional and social, as well as a moral and religious being, are duly evolved and brought into play in the development of the perceptive consciousness; for, *before all teaching*, he has not only an intuitive aesthetic sense of the true, the beautiful, and the good—of sublimity in Nature and of harmony in sound,—but moral intuitions of right and wrong, and religious and emotional of wonder, awe, veneration, and reverence.

Long before he has attained to the utterance of articulate speech—nay, as soon as the perceptive consciousness has begun to dawn, and the power of recognition to be awakened—the child is able intuitively to interpret the tones, gestures, and expressions of emotion, and becomes sympathetically affected by them. In his mind, an intuitive apprehension of right and wrong is attached to certain actions, and evidently precedes any distinct apprehension of the language by which moral truths are conveyed. The blush upon the cheek, and the early sense of shame, come before there have been any trains of thought as to the consequences of misconduct or of crime. In the expressive language of Lord Bacon, “the light of Nature not only shines upon the human mind through the medium of the rational faculty, but by an internal instinct, according to the law of conscience, which is a sparkle of the purity of man’s first estate.” Equally and alike intuitive are his religious emotional feelings of awe, wonder, veneration, and reverence, early developed, and awakened by objects of sublimity, grandeur, vastness, and mystery.

Moreover, closely associated in the perceptive consciousness, with the propensities and affections, and with the moral and religious intuitions and feelings, are the emotional states. Like them, these are all of a composite nature, involving in their manifestation perceptive or ideational activities, as well as sensorial feelings. There are, indeed, certain elementary emotional sensibilities, readily roused into activity, through all the organs of sense, and which, in the absence of the ideational element, may be said to bear the same relation to the true emotions which the instincts do to the propensities and sentiments, as, for instance, joy and fear, etc.; for such is laughter, the expression of joyous emotion, when a mere consensuous act, provoked by titillation on the surface of the body; and such, too, are the trembling fear and shuddering dread from the lightning’s vivid flash, quickly followed by the crash or peal of the loud thunder. But still ideation is the connecting link inter-mediating between the extremes of mental action, emotion and volition—between our inherent elementary emotional sensibilities and impulses on the one hand, and the operations of thought and volitional power on the other; sometimes, indeed, in subordination to the one, and sometimes the other. For Laughter, holding both her sides, when an emotional act, is excited by ludicrous ideas in the mind.

Now, as sensation is the link in the chain of being between the conscious and unconscious processes, the vital and the mental forces, so is perception intermediate between sensation and intellection—the lowest and the highest phases of consciousness or mental development. The intuitions of the perceptive faculties, being often closely interwoven with feeling, and sometimes, especially in regard to our social and moral relations intensely felt, while on the other hand, they furnish the pabulum of thought. And though feeling has no place in the constitution of abstract ideas, or on the processes of logical reasoning, still we have both pleasurable and painful trains of thought and reflection.

[To be continued.]

## DOES THE PERICARDIUM BECOME INVARIABLY ADHERENT TO THE HEART AFTER ACUTE PERICARDITIS AND RECOVERY?

By WILLIAM HINDS, M.D., Professor of Botany at the Queen’s College, Birmingham; and Lecturer on Botanical Science at the Birmingham and Midland Institute.

THE question is difficult to deal with very positively and conclusively: first, because the cases which die, and in which we find the two surfaces glued together, do not reveal to us the possibility or impossibility of a continuance of life or even an apparent recovery; and secondly, because the recoveries, or “apparent” recoveries, as I shall be able to show, are made by patients who may often live long, and may never again pass into our hands—their histories being thus lost to view, and therefore to science.

The view generally adopted with respect to this question may be stated in the following words of an eminent writer:—

“The to-and-fro or rubbing sound is never of long duration, but soon terminates in one of two ways. Either the patient dies in a short time, the sound continuing to the last; and then the pericardium is found coated with rough lymph, but throughout the far greater part of its extent or altogether *unadherent*. Or the sound ceases, never to return, while the condition of the patient improves, or he even seems to himself and to others to recover his perfect health. In these cases, the sound ceases from a physical impossibility of its continuance; viz., from adhesion of the pericardium over the whole or the greater part of the surface of the heart. And in this category of apparent but unreal recoveries, I cannot doubt that many of Bouillaud’s cases of ‘pericarditis terminating in health’ ought to be included.”

With this principle deeply impressed on my mind, I had often been surprised to witness, in many cases which from time to time came under my notice, a recovery with which I now believe, and have a long time believed, that the principle above laid down is not consistent. I will give shortly one or two cases, as examples of the class indicated.

CASE. T. S., a gentleman, aged 27, proprietor of a vinegar brewery, was attacked on August 5th, 1857, with rigors and loss of appetite after exposure. He had also severe pain of the neck, and was unable to move his head. Pain across the chest was also complained of, and some cough. He was treated with expectorants and diuretics, and began to improve; and on the 8th, he was in business amongst the casks. In consequence, his symptoms became aggravated. He was seen on the 10th, and complained of severe pain over the cardia and about the chest. He was ordered to bed; and on examination, there was found great tenderness in the precordial region, and especially on pressure upwards beneath the left short ribs. The stethoscope revealed a very loud friction or to-and-fro sound; and in addition, a little *bruit* with the first sound of the heart. The case was treated by local bleeding, calomel and opium, and diuretics.

August 14th. The tenderness was less; the gums were slightly affected by the mercury; and the friction-sound was not quite so rough and loud. The treatment was continued.

August 17th. The tenderness on pressure upwards beneath the ribs was nearly gone. The friction-sound was still less distinct, and the normal sounds of the heart were heard more distinctly. The gums were very tender, and the mercurial factor was very perceptible in the breath.

August 18th. All friction-sound had ceased, and a

near approach to the natural sounds of the heart existed. The patient was up and walking about the room. He continued to take the calomel; but only to the extent of a grain once daily.

Three days afterwards—namely, on the 21st—he was rapidly gaining strength; and a most careful examination showed the heart's sounds perfectly normal.

In this most useful case, the friction or to-and-fro sound, at first very great, gradually disappeared from day to day, as the case generally improved under the influence of local bleeding and mercury. The patient, seen repeatedly during the last three years, shows not the slightest departure from robust or perfect health; and it is fair to assume that the cure is complete and real. If in this case the heart had been glued to the pericardium, could such a complete and lasting recovery have occurred? Surely not.

In my paper, No. 2, previously published in this JOURNAL, Case III will be found to exhibit a precisely similar subsidence of the to-and-fro sound. They are types of numbers of cases which occur and must have occurred to many practitioners, and I do not see that it would add any additional weight therefore to multiply similar cases. I will, however, mention one, showing a different termination of the same disease.

CASE. A. B., a child, aged about 2 years, was taken ill with violent feverish symptoms, and died after a very few days illness. No heart-disease was detected during life. The symptoms being considered somewhat obscure, a *post mortem* examination was requested. At the autopsy, the heart was found glued to the pericardium throughout its whole surface by a thick toughish layer of recent lymph.

Now, the cases in which the heart is found intimately and closely adherent to the pericardium, if we except those from recent disease, must, I believe, be held to be extremely rare. Do they ever occur? Has any practitioner seen many or any such cases in which the patients, well of the cardiac, have died of any other disease, or even "apparently" well of the cardiac disease and living in apparent health for any considerable period afterwards? But if not, it affords at least negative evidence of the impracticability of even apparent health with an adherent pericardium. I have never myself met with any case of adherent pericardium, except from recent disease; and, even in cases of patients dying of heart-disease of any other type, I have never met with any case of intimate general adhesion of the surfaces. I find a case in Dr. Watson, in which there was adherent pericardium in a patient who died suddenly, just sixteen days after the friction-sound had ceased. This, however, is not even an apparent recovery. A case of some duration also died lately under my own care, in which there was enormous distension of the cellular tissue and effusion into the cavities; and in which, on a *post mortem* examination, some few shredly fibrous bands, of one to two inches long, passed between the surfaces. Such cases, however, do not at all affect the principle suggested.

The white patches and spots often seen on the surface of the heart, and to which my attention was first directed by the observations of Dr. Williams, late of University College Hospital, made in the course of *post mortem* examinations, were considered by him as the remains of circumscribed partial inflammations affecting at least the serous covering. If such were their origin, it is not improbable that even these partial inflammations would give rise to the peculiar friction-sounds so long as any roughness remained; such sounds ceasing on the absorption of lymph being complete. The origin of these patches, however, does not affect the general question.

The facts and considerations adduced, point to two just conclusions: *first*, that there is no conclusive evidence to show that an adherent pericardium is con-

sistent with the continuance for any considerable period of life, or of apparent recovery of the healthy state; and *secondly*, that pericarditis, with exudation of lymph on the surfaces, is a curable disease, and that in a strict and just sense of the term.

## Reviews and Notices.

THE NATURAL HISTORY REVIEW: A QUARTERLY JOURNAL OF BIOLOGICAL SCIENCE. No. I. London: Williams and Norgate. 1861.

THERE is perhaps nothing more indicative of the low ebb of natural science in England, than the limited circulation of all journals and books devoted to its advancement. Mix it up with a little "Cockney chaff", and it is wonderful how it goes down, from animated descriptions of whirling atoms, up to the habits and instincts of man himself. Just in proportion to the difficulty of getting a sale, is apparently the difficulty of finding any single man who will undertake the editorship of a scientific journal. In this last new venture, no fewer than eleven editors are advertised; and as, at the present day, we could hardly expect for a scientific journal a large number of readers or contributors, it would look as though each contributor was his own editor and reader. It is, however, a fact much to be regretted, that there are so few persons who pursue science for its own sake; and that, unless science take some practical direction, there is no one to listen to its claims. There is, to be sure, just now a little agitation on the surface of society about Mr. Darwin's new book *On the Origin of Species*: and perhaps we are indebted to this work for the starting of the new journal, as we find that those who have undertaken the duties of editorship are among the acknowledged supporters of the new theory. The contents of the first number would also seem to indicate that the new editors intend to do battle against ancient prejudices in more directions than one.

The most remarkable paper is one by Professor Huxley, on the Zoological Relations of Man with the Lower Animals. Those of our readers who have followed Professor Huxley's literary career (and few who have cultivated biological science will be unacquainted with his writings) will have remarked that many of his zoological and physiological views are in opposition to those of Professor Owen. The young professor has no fear nor scruples in attacking the great scientific "lion" of his day. His pursuit of science has not, it would seem, led him in the same path as the great British palæontologist. The subject of Mr. Huxley's paper is one of great interest; and, although often discussed independently of any theory of the origin of species, it has gained attention on account of its introduction into the arguments for and against Mr. Darwin's theory. On the occasion of the discussion of this subject at the meeting of the British Association at Oxford, Professor Owen, in objecting to Mr. Darwin's views, stated that the differences between man and the highest quadruped were so great as to render it unreasonable to suppose that, by any hypothesis of natural selection, he could have been the offspring of a species of monkey. He added, that the difference between the brain of man and that of the gorilla was greater than