

tions have been made with contradictory results. On the one hand a number of observers state that one or all of these substances can cause suppuration in animals. I myself came to the conclusion some years ago that croton oil could cause suppuration in rabbits. Omitting the earlier experiments, which were not free from objection, I may mention the method I ultimately adopted with the view of excluding all possible contamination with organisms. I took a mixture of equal parts of croton oil and olive oil, sterilised it, introduced it into sterilised glass capsules, which were then sealed at both ends. An incision was made antiseptically in the muscles of the back of a rabbit, and the tube introduced into the muscles; the wound was then stitched with catgut, and an antiseptic dressing applied. The result was that in a certain number of cases the wound healed by first intention, and the glass capsule remained embedded in the muscles as an unirritating foreign body. After a certain time had elapsed the capsule was broken by slight pressure against the spine, and thus the croton oil was brought into contact with the tissues. In one experiment performed in this way the capsule was broken fifty-four days after its insertion, and the animal was killed twenty-seven days later. On making an incision into the part a quantity of putty-like material was found. In another experiment, forty-five days elapsed between the operation and the breaking of the tube, and the result was the same, except that there was a much less quantity of this putty-like material. No organisms were present in either case.—Councilman and others who have followed the same plan mention similar results, as do also other observers, such as Orthmann, Grawitz and de Bary, etc., who have adopted different methods.

On the other hand, we have a number of experiments, carefully conducted by a number of independent observers, in which no suppuration has followed the introduction of irritating chemical substances. Thus Straus took especial care that organisms should not be introduced along with the material injected by cauterising the surface of the skin at the seat of injection, so as to destroy the organisms on it, and he is positive that these substances do not cause suppuration. Perhaps the most valuable of these researches is that by Klemperer, who adopted Straus's method with still greater precautions. He states that he has failed to cause suppuration by the injection of these substances except in cases where micro-organisms were present at the same time. I may also mention a research by Ruijs, where the materials were injected into the anterior chamber of the eye, and where the effect could be watched. Here also it was found that if organisms are absent, suppuration does not follow the introduction of these chemical substances.

In weighing the evidence it is clear that most stress must be laid on the negative results. If a number of careful observers have failed entirely to produce suppuration by the injection of these irritating chemical substances, then those who have obtained a contrary result must either have brought some other factor unwittingly into play, or there must be some other explanation of the result.

The explanation of the positive results given by those who hold the opposite view is that organisms were really present in the pus, but were either missed from imperfect examination or had died out before the abscess was opened. Speaking of my own results, I am positive that organisms were not present in a living state when the animal was killed, and although it is quite possible that they may have been present at an earlier period, and have died out before I opened the abscess, I do not think that this explanation is a satisfactory one, for other investigators have examined the seat of injection after a shorter period than I did, and have likewise failed to find micro-organisms; and, besides, the character of the disease induced is different from that caused by micro-organisms. In the latter case we have a progressive suppuration, an abscess which goes on spreading, whereas those who speak of suppuration occurring after the introduction of croton oil, etc., state that it is not a progressive inflammation, and does not resemble that caused by micro-organisms.

On the other hand, it seems to me that we are possibly disputing about the same thing, that what the one set of observers calls pus, the other set looks on as fibrinous exudation, for Klemperer, Ruijs, and others speak of the occurrence of fibrinous exudation containing many leucocytes as the result of their injections. Certain it is that, after the injection of these chemical substances, true creamy pus is not obtained unless micro-organisms are present; the most that one gets is a collection of putty-like material, and it becomes a question whether this putty-like

material may not simply be a further change in what has been found at an early stage, and has then presented the appearance of fibrinous exudation. Klemperer states that on examining a part into which croton oil has been injected, the tissues at the centre of the irritation are of a yellow colour, infiltrated with fibrinous exudation and large numbers of leucocytes. Where the pyogenic organisms act, their peptonising action rapidly dissolves this original tissue, and prevents the coagulation of the fresh exudation, and thus a cavity, containing fluid pus, is rapidly produced. On the other hand, where these organisms do not act, there are still grounds for believing that the tissues themselves can, very slowly it is true, dissolve and remove the dead material, and thus we may quite well find, as the result of the prolonged action of living cells on the extensive dead mass, a putty-like mass which has been described by some as pus.

This seems to me to be the most probable explanation of these discrepant statements, but on this view we must admit that these irritating substances cannot cause true acute suppuration when micro-organisms are absent. The result which they produce is a different pathological process, corresponding more closely with the formation of chronic abscesses than with that of true suppuration. For the formation of acute abscesses we apparently require the presence of the peptonising ferment produced by the micro-organisms, or, at any rate, of a chemical substance which prevents coagulation of the exuded fluid. Thus we have to note that both Grawitz and Scheuerlen, the latter of whom denies the occurrence of suppuration as the result of irritating chemical substances, have succeeded in inducing acute abscesses by the injection of cadaverine, an alkaloid separated by Brieger from putrefying flesh; this substance is not only an irritant, but also prevents coagulation.

As a matter of fact, in Nature the only situations where we have to consider the possible occurrence of suppuration without organisms are the surface of wounds and the skin. With regard to the possibility of acute suppuration from a wound as the result of the initiation of the antiseptics applied to it, I must confess that I have never yet seen true creamy pus coming from the surface of a wound without finding at the same time micro-organisms in it; and I suspect that the only effect of the antiseptic substance is to increase the amount of exudation and the number of leucocytes, and thus cause at most a semi-purulent discharge. The only other instance in which I have seen suppuration in man without micro-organisms as the result of the action of chemical substances is on the skin at the margin of the new alembroth dressings, where pustules are apt to occur when the discharge is at all free, the contents of these pustules being a sticky semi-purulent material and not containing any micro-organisms. This is the nearest approach that I have seen to true acute suppuration in man without the action of micro-organisms.

A LECTURE ON ANATOMICAL PECULIARITIES IN RELATION TO DISEASE.

*Being one of a Course on Evolution in Pathology delivered at the
Royal College of Surgeons.*

BY J. BLAND SUTTON, F.R.C.S.,

Hunterian Professor; Assistant-Surgeon to the Middlesex Hospital.

MR. PRESIDENT AND GENTLEMEN,—Not the least interesting investigations in the province of comparative pathology are those which relate to morbid conditions, depending in a great measure, or almost entirely, on anatomical peculiarities. The material at my disposal to illustrate this question is very large, hence, on the present occasion, only the more striking examples will be chosen for description. My first illustration is taken from the lamelli-

branches. Lining the concavity of the shells is a membranous structure, which may be regarded as the integument, and known as the pallium or mantle. The shell itself is the direct result of the excretory efforts of the lobes of the mantle, and is composed of animal matter hardened by deposits of carbonate of lime.

Occupying the space between the mantle of opposite sides, we find the animal proper consisting of branchia, intestines, foot, nervous system, heart, reproductive organs, etc.

These animals obtain their food in a somewhat lazy fashion. The margins of the gills are covered with cilia, which, by their constant movements, set up inhalent currents, which not only serve to oxidise the blood in the branchia, but convey concrete particles, many of which are seized upon by the mussel and utilised as food.

Some lamellibranchs have animals commensal upon them. Commensalism differs from parasitism, in the important fact that an animal commensal on another lives upon the food of its host, whereas a parasite lives in the cavities or tissues of, and draws nourishment from, the blood of its host. It would seem that as long as the animals commensal on a lamellibranch keep within the space between the mantle they are safe enough, but occasionally they are rash enough to penetrate the space between the shell and the mantle.

This trespass is resented by the lamellibranch, and the trespasser is punished by being entombed in shell-tissue, and in some cases by pearl.

A very beautiful example of this has lately been recorded by Dr. Günther (*Pro. Zool. Soc.*, June 1st, 1886). The specimen is represented in the accompanying woodcut, Fig. 1. It had been in Dr. Günther's possession for many years. It is an old shell of *Margarita margaritifera*, in which there is embedded, behind the impression of the attractor muscle, a perfect individual of a fish belonging to the genus *Fierasfer*. The fish is covered by a thin layer of pearl-substance, through which not only the general outlines of the body, but even the eye and mouth, can be seen.

In this case the fish, instead of keeping between the two halves of the mantle, penetrated between the mantle and the shell. The irritation thus caused induced the mollusc to cover the intruder with pearl. The secretion must have taken place in a very short time, at any rate before the fish could have been destroyed by decomposition.

Specimens of this nature arrest attention on account of their novelty, and many similar cases could be adduced. This encysting process may be studied in mammals, particularly in the molars and tusks of elephants. In numerous cases, spear-heads, bullets, and other foreign bodies have from time to time been found completely embedded in ivory. Even in the human subject foreign bodies encysted in connective tissue come under observation.



Fig. 1.—A fish of the genus *Fierasfer* imbedded in a pearl oyster (after Günther.)

The Incisors of Kangaroos.—The dentition of kangaroos is, in many respects, peculiar. In the present case it is only with the

incisors that we are concerned. It will be seen from the drawing (Fig. 2) that the upper incisors are three in number, and present

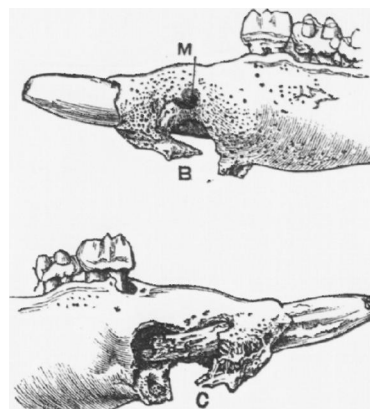


Fig. 2.—The upper and lower incisors of a kangaroo.

little that is exceptional, but the lower jaw possesses only one, and this, in order to antagonise with the upper incisors, is of large size and procumbent, projecting horizontally forward. They are flattened from side to side, and are slightly convex in the outer surface; the inner surface is flat, with a median ridge; the margins are sharp. These incisor teeth are provided with a large and persistent pulp, which extends an unusual distance along the tooth, reaching nearly to its distal extremity.

The points of these teeth, shaped something like a lancet, are exceedingly thin and brittle; as a consequence, the tips are frequently broken, and if only a small piece is detached, the pulp is readily exposed. Kangaroos, like mammals of even high moral pretensions, have domestic differences, which occasionally lead to unpleasant consequences. In the encounter the tips of the incisors are broken, the exposed pulp becomes inflamed, suppurates, and leads to alveolar abscess, which, in some cases, terminates in death. In Fig. 3 two views of the symphyseal portion of the

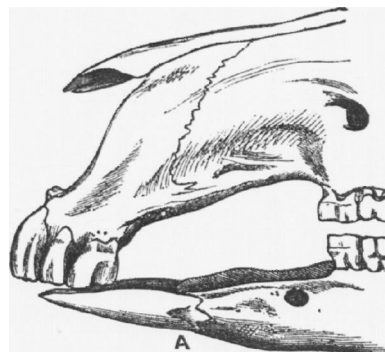


Fig. 3.—Portion of the lower jaw, with the incisor teeth of a kangaroo, showing the effect of alveolar abscess. M, the mental foramen.

lower jaw of a kangaroo are given, showing the disastrous effects of an alveolar abscess arising in this way. Such cases are by no means uncommon.

The Vermiform Appendix.—In that man has connected with his cæcum a vermiform appendix, he agrees with the anthropomorpha, but differs from all other mammals. This appendix is the vestigial representative of the large cæcum found in very many mammals. Though useless, it is not harmless, as a careful attendance in the *post-mortem* theatre of any general hospital in this metropolis will show. The inconveniences which may arise from the possession of this rudimentary structure are threefold: 1, not infrequently foreign bodies, such as fruit stones, small pieces of pencil, and other similar indigestible substances become impacted in it, induce ulceration, perforation, and peritonitis; 2,

its orifice may become obstructed, and the appendix dilate into a cyst; 3, containing, as is common with vestigial portions of the alimentary tract (vitello-intestinal duct, post-anal gut, etc.) a large amount of lymphoid tissue, ulceration may occur independently of a solid irritant and destroy life.

On the present occasion, however, I am not desirous of drawing many instances from man, but shall deal with one other inconvenience he suffers in common with many members of his class, and even birds; fortunately one that is rarely serious, but interesting nevertheless.

Sebaceous Glands.—The normal anatomy of a sebaceous gland is so well known that it is unnecessary to describe it here, so we may pass at once to a consideration of some of the disadvantages which may arise from their presence. Not infrequently the orifice of the duct of one of these glands becomes obstructed, whilst secretion continues within the alveoli. The acini of the gland thus become distended with the result of their own activity, and a retention cyst is the result. In man such cysts may occur wherever sebaceous glands exist, varying in size from a pin's head to an orange. The walls may be thin and pliant, or laminated, thick, and hard. In man they are very common on the scalp, face, and back; on the scrotum and perineum they are rare. The contents of a sebaceous cyst are epithelial scales, granular fatty matter, and flakes of cholesterolin.

The most curious condition associated with a sebaceous cyst is when the contents burst through the capsule, become dry and hard through exposure to the air, and of a brownish-black colour, resembling horn in appearance. If the dried mass is allowed to remain, growth continues at the base, and at length a long cutaneous horn is produced. (Fig. 4.)



Fig. 4.—Cutaneous horns on the face of a woman. The one on the forehead is 5 inches long.

The most elaborate collection of cases illustrating this singular condition is to be found in a small work by Dr. Hermann Lebert (*Ueber Keratose*, Breslau, 1864). He furnishes an account of one hundred and nine cases, with full references, the earliest dating from the year 1300. The horns were found on the scalp, temples, forehead, eyelids, nose, lips, cheeks, shoulders, arm, elbow, thighs, legs, knee, toes, axilla, thorax, buttock, loin, penis, and scrotum. In length they varied from a fraction of an inch to as much as ten or twelve inches, and in circumference some of them measured eight inches. The majority of these cutaneous horns occurred on the head.

An excellent account of human horns is furnished by Sir Erasmus Wilson in his well-known work on *Diseases of the Skin*, 5th ed., p. 653. Besides furnishing details of some good examples of these abnormal appendages a brief but interesting summary of some of the more striking cases is given. The *Transactions of the Pathological Society of London* contain accounts of many curious examples of cutaneous horns, including one which grew from the prepuce of the clitoris. The *Phil. Transactions* for 1791 contain an interesting communication from Sir E. Home, in which some extraordinary cases of cutaneous horns are described. Horns growing from sebaceous cysts are not infrequently seen in the out-patient rooms of large hospitals, but they are as a rule very small in size. Cases such as those described in Home's paper must be very rare at the present time.

Leaving man, and extending our inquiries to lower animals, we

shall find that sebaceous cysts and their consequences are by no means confined to him. They may occur in horses, dogs, sheep, oxen, and birds.

Lebert gives references to cases of cutaneous horns in sheep, he-goats, horses, rams, hares, cows, and dogs. Malpighi described one growing from the neck of an ox, ten finger's-breadths in length, and eight in circumference at the base. Home described in a footnote to the paper already mentioned the case of a sheep about four years old, which had a large horn, three feet long, growing on its flank. It had no connection with bone, and appeared only to be attached to the external skin. It dropped off in consequence of its weight having produced ulceration of the soft parts to which it adhered. On examining it there was a fleshy substance, several inches long, of fibrous texture, filling up its cavity, on which horn had been formed.

In the teratological collection of the Royal College of Surgeons there is a horn three feet five inches in length, and eleven inches in its greatest circumference, said to have grown on the flank of a ram; preserved in a jar near it is the soft core of the same, exactly corresponding to Home's description. The specimen is labelled Hunterian, and I have no doubt it is the one referred to above.

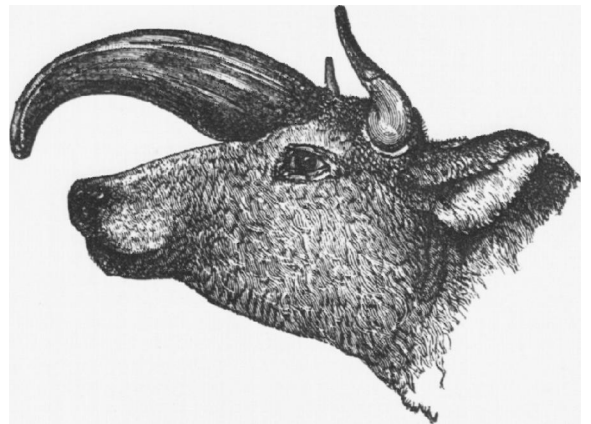


Fig. 5.—Head of a cow with a cutaneous horn.

In the same collection, near it, two other specimens of cutaneous horns are preserved. The first, Fig. 5, a Hunterian specimen, is described as "the head of a cow with a very large hornlike appendage growing from the forehead immediately between the eyes. The second is the head of a sheep, Fig. 6; in this case the horn causes it to resemble the head of a cassowary.

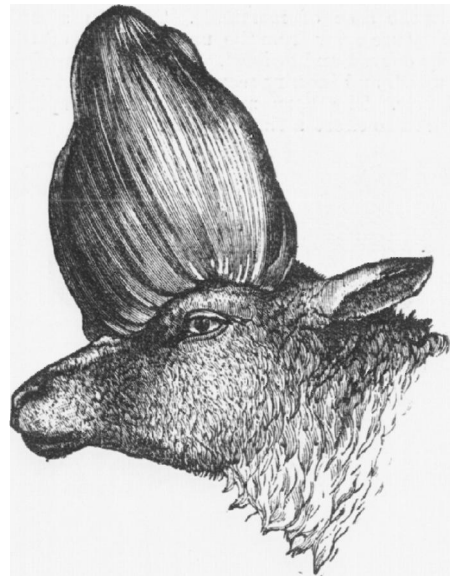


Fig. 6.—Head of a sheep with a cutaneous horn.

Judging from the general character and texture of these horns and the nature of the softer material filling them, I have no doubt they originated in sebaceous cysts. These horns, and that which has just been mentioned as growing from the flank of a sheep, are the largest I have seen or of which I can find any record.

We will now proceed to consider some cases which have been found in birds.

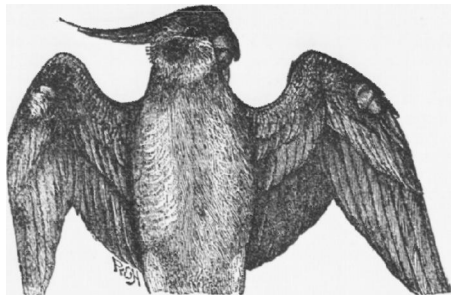


Fig. 7.—A cockateel, *Calopsitta nova-hollandia*, with symmetrical sebaceous cysts on the wings (*Proc. Zool. Soc.*).

It is usual to believe that in birds sebaceous glands are wanting, except in the case of the one over the coccyx, known as the oil or uropygial gland, which is especially developed in water fowl, and serves as a store of ointment in which the bird dips its beak and anoints the feathers in the act known as preening. It is a very significant fact that no known bird ever has its neck shorter than its trunk; that is to say, it is always of sufficient length to allow the bird to reach the oil gland. This structure is not invariably present, for the struthious birds, some of the *Columbæ*, and others, lack an oil gland. In the pigeon it is bilobed, of a whitish colour, and a quarter of an inch in length. A duct which is directed backwards has its orifice indicated by a papilla. Such an oil gland as this is described as being nude. In others it is surrounded by a circlet of small feathers, and is then described as tufted. The majority of birds have two ducts to this gland. In the hornbill the gland is of a deep orange-yellow colour, which stains very freely things brought in contact with it.

Sebaceous glands exist in other parts of birds' integument, such as the wings, head, neck and breast. They resemble the glands of man in structure, in the tendency to form cysts and in growing horns. Thus in Fig. 7 a cockateel, *Calopsitta nova-hollandia*, is sketched with a sebaceous cyst on the under surface of each wing, and many specimens are preserved in the Museum of the Royal College of Surgeons, occurring in pigeons, partridges, linnets, etc.; some of the cysts are of large size.

The tendency of sebaceous cysts to form horns in birds is as marked as in the case of mammals. Thus in a mule canary a horn of this nature grew from the under surface of the wing, and was curiously curved and twisted. This horn was shed each time the bird moulted, and inquiry seems to show that with birds this is the usual rule. The horn must grow very rapidly to attain such a length in so short a time (Fig. 8).

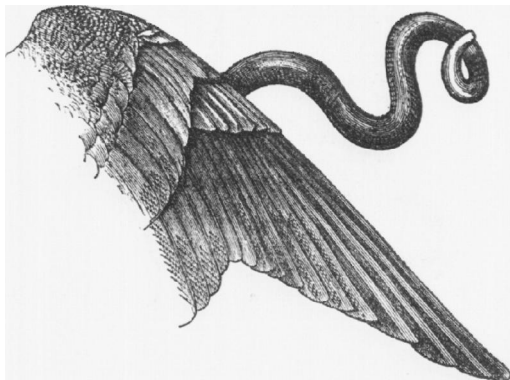


Fig. 8.—The wing of a mule canary with a cutaneous horn growing from it. Natural size. (Museum of the Royal College of Surgeons.)

Through the kindness of Mr. W. Roger Williams I am able to figure and describe a pretty case of sebaceous cysts and horns in a thrush. In this instance the bird presented a cyst upon its head (Fig. 9), whilst cutaneous horns, as shown in the drawing, were



Fig. 9.—The head of a thrush with a sebaceous cyst. On the leg of this bird two cutaneous horns existed.

attached to its thigh. In this instance the horns were detached when the bird moulted. The thrush was under the observation of Mr. Williams for some time previous to its death.

Sebaceous cysts in birds present characters similar to such cysts in man; in some instances the contents are pultaceous, in others laminated and hard. This is well shown in a cyst growing on the head of a blackbird in the College Museum (Fig. 10).

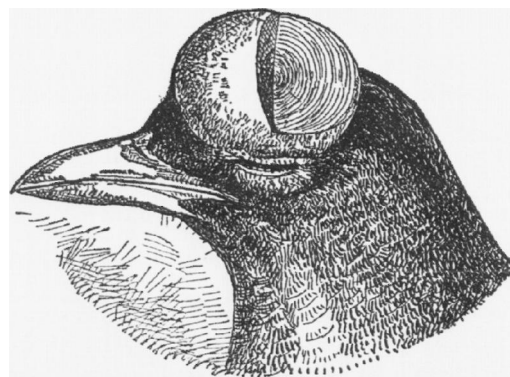


Fig. 10.—The head of a blackbird with sebaceous cyst. The contents are laminated.

Before leaving cutaneous horns it may be interesting to draw attention to a singular cluster of these structures which occur normally on the forearm of *Hapalemur*. These were first described by Mr. F. E. Beddard (*Proc. Zool. Soc.*, 1884, p. 391) in *Hapalemur griseus*; underlying this cluster of cutaneous horns is a gland of oval shape and corresponding in size to the patch of spines. The ring-tailed lemur (*Lemur catta*) presents when adult a curious cutaneous hornlike structure on its forearm, in a situation corresponding to that on the arm of *Hapalemur* (Fig. 11).

This horn or comb-like structure was first noticed by Dr. Jentink in specimens contained in the Leyden Museum. The simi-

larity of this structure with the small spines on the arm of *Haplemur* induced me to examine the adjacent smooth patch on the forearm of *Lemur catta*, and I had the satisfaction of finding a large collection of glands, the secretion from which, when dried, gives rise to the horny projection in question.

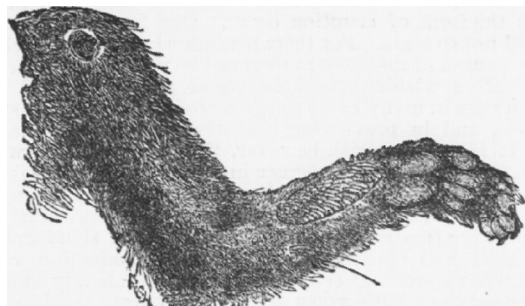


Fig. 11.—Arm of *Haplemur* with the patch of cutaneous spines on its forearm (*Proc. Zool. Soc.*)

These structures are interesting, inasmuch as they may be regarded as intermediate to the pathological cutaneous horn on the one hand, and the cutaneous nasal horn of the rhinoceros on the other. They also furnish some light as to the nature of the singular patch of hard integument known as the castor on the inside of the foreleg of the horse. In addition, we may use them as physiological types of cutaneous horns which in man only occur under pathological conditions.

ON THE ABORTIVE TREATMENT OF SYPHILIS.

Read before the Medical Society of London, on Monday, February 20th, 1888.

By JONATHAN HUTCHINSON, F.R.S., F.R.C.S., LL.D.,
Emeritus Professor of Surgery at the London Hospital.

FOR many years past I have been in the habit of assuring patients who came to me with indurated chancres but without any other symptoms, that they would in all probability wholly escape the secondary stage. As years have gone on I have found myself holding out this hope with increasing confidence. My treatment has been almost uniform, and has consisted in giving mercury in the form of grey powder in one-grain doses three times a day, at least, and more frequently if the symptoms did not quickly yield. I have always told the patient that he must take these pills for six months at least. The results have also been very uniform, or have varied chiefly according to the period of the disease at which the treatment was begun. The effect of the medicine in softening the induration is usually quite evident within a week, and may be expected to be complete in the course of a month or a little more. After this the patient remains without symptoms till the end of the course, except, perhaps, some slight persisting enlargement of the inguinal glands. At the end of the six months, if the treatment is left off, there not very infrequently follows in three weeks or a month an erythematous general eruption. This eruption is never severe, never becomes papular or scaly, and always vanishes in a few days if the mercury is resumed. It is never attended by failure of health, and but rarely by sore throat. On account of its frequency after six months' courses, I have lately been in the habit of continuing the treatment for nine or twelve months, and am willing to admit that it might be wise to continue it for still longer periods. As regards relapses at still longer periods, I must state that, in a certain proportion of cases, sores in the mouth or scaly patches in the palms, or a liability to transitory erythematata on the skin have occurred, but they have generally been in connection with some special kind of irritation.

The statement which I wish to make quite clear is this: that I believe that it is quite possible, by the early and continuous use of mercury, to suppress the secondary stage—in other words, to make it abortive. In exceedingly few cases where it has been possible to use mercury without interruption in this way have I known a

well characterised secondary eruption or a typical sore throat to occur. In cases where diarrhoea or sudden pyralism have caused the course to be interrupted, the success has been less complete; but where the patient is careful, and can bear the drug, I may repeat that I believe that it is easily possible to prevent secondary symptoms. This assertion is not by any means the same as saying that it is possible to cure syphilis, for it does not concern itself with the tertiary stage. It is desirable, I think, in order that we should arrive at sound conclusions, that we should take our problem in parts. In making the proposition which I desire to submit to you this evening, that mercury is a specific antidote for the syphilitic virus, and that by its use the disease may be made abortive, I will divide my argument into several parts.

The first statement shall be one with which all will agree. It is this: that in cases in which induration is well characterised and considerable, it always yields quickly and definitely to the influence of mercury. The very rare apparent exceptions to this which we witness occur to those who in a peculiar manner resist the influence of mercury. We never see sores remain typically hard when the patient is under the influence of mercury.

The next is that in cases in which high temperatures have been observed in syphilis they always abate under the influence of mercury.

Thirdly, I believe that all will agree that when a patient receives no treatment until his eruption is well out, the use of mercury will usually in the most definite manner cause the eruption to disappear. There is but little less certainty about this than there is as to the disappearance of induration in the sore, and the exceptions occur only when the treatment disagrees, and has to be interrupted.

If these several propositions be true, if mercury always causes induration when present to soften down, fever when present to subside, and an eruption when present to disappear, I cannot think that any will see much improbability in the assertion that if used before the fever, rash, etc., have shown themselves, and steadily continued, it will prevent their development. It would be extraordinary if these symptoms should develop *de novo* under the very conditions which all but invariably secure their removal when extant.

Those who object to the statement that mercury is an antidote to syphilis, and decline to employ such terms as "specific," "abortive treatment" and the like, do so because, as they allege with truth, it can seldom or never be asserted that the disease has been wholly or, at any rate, permanently cured. This is, however, I cannot but think, putting a too strong meaning on the words. It may easily be the fact that we have not yet hit upon the best method of using the remedy so as to secure permanent results. It is not fair to demand of a "specific" that it shall always prove its efficacy without regard to differences in the mode in which it is employed. A remedy may be fairly called "specific" if it always and invariably manifests its power over the phenomena of a disease. It is for the prescriber to find out how so to use his specific as to bring about an actual cure. As regards the term "abortive treatment," its appropriateness may surely be justified in any case in which it is designed to cut short the development of a malady and prevent the evolution of its natural stages. We must not strain the word to make it mean absolute annihilation of the thing concerned. If a scheme of treatment of syphilis, begun in the primary stage, is planned to prevent the secondary phenomena, and usually does so, it may, I think, be fairly styled "abortive" in contradistinction with others which make no pretence to prevent the ordinary evolution of the malady. Abortion, as regards preventing tertiary symptoms, is, as I shall endeavour to show immediately, another matter. It is possible that in our present modes of use of mercury we neither begin early enough nor continue long enough to secure that result.

The term antidote, when used in reference to mercury as against syphilis, must be sustained by resort to more hypothetical reasoning as to the nature of the disease. In the year 1860, in a paper read before the Hunterian Society, I first ventured to claim a place for syphilis amongst the exanthemata, and argued that in its phenomena as regards stages, period of incubation, and other points, it resembled the diseases which we attribute to specific animal poisons. Amongst those who took part in the debate on my paper were Mr. Acton, Mr. De Méric, and others who at that time were the leading authorities on the subject. Some years later I read before the same Society another paper, claiming for mercury, on much the same grounds that I have this evening advanced, the position of a specific. My views were on each occa-