CONTRIBUTION TOWARDS THE HISTORY OF THE DEVELOPMENT OF THE ECHINOCOCCUS, WITH ESPECIAL REFERENCE TO THE FORMATION OF DAUGHTER-CYSTS.

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Our acquaintance with the history of the development of the Echinococcus has lately been enriched by many valuable observations. The old controversial question, whether the Echinococcus should be regarded as consisting of one or two species, a question which Kuechenmeister once more took up, when he described his two species, Echin. scolecipariens and Echin. altricipariens, corresponding to Echin. veterinorum and Echin. hominis, appears at last settled, inasmuch as Naunyn (1) and Krabbe (2) succeeded almost at the same time in developing Scolices from the human Echin. (Echin. altricipariens), within the intestines of the dog to Taenia echinococcus, and this within the period and in the manner shown originally in reference to the Echinococcus of the ruminants (Echin. scolecipariens) by v. Siebold in 1852.

These experiments, made with the greatest possible precaution, to exclude every extraneous ingress, admit hardly of any doubt as to their accuracy; yet it might be desirable to see them repeated and corroborated.

Moreover, Leuckart administering with food the mature eggs of Taenia Echinococcus succeeded in showing the development of the embryos into Echinococcus vesicles, although the direct transformation of the embryo eluded his observation. It was proved by these experiments, that the Echinococcus remains a comparatively
long period, at least twenty weeks, in the first stage of its development, during which it forms a single vesicle with stratified cuticle and a thin layer of parenchyma, lining the inside of the cyst. But it was impossible to fix the period required for the transition of this cyst into the second stage of its development, in other words, to produce Scolices or the Echinococcus scolecipariens—to use Kuechenmeister's specific appellation for that stage. But the mode in which Scolices develop themselves on the interior lining of the vesicle, was shown by Leuckart (3) and Naunyn (4) nearly at the same time, but independently of each other. Both agree that Scolices never develop themselves spontaneously and individually from the parenchyma-stratum, but always in peculiar cavities, brood-vesicles, formed out of originally solid protrusions, issuing from the parenchyma-stratum; in this a central cavity is formed, covered with a thin cuticle, and during its growth it presses more and more forward the exterior papillary parenchyma-stratum, until this at last, when the brood-cell is wholly developed, merely forms a thin layer on the outside of the cuticle.

But these observers differ as regards the mode in which they suppose Scolices are developed in this Brood-cell. Leuckart is of opinion that the Scolex-bud grows out as a hollow protrusion from the exterior Parenchyma-stratum of the Brood-cell, and internally receives a lining from the cuticle; that thus the coronet of hooks and the suckers are formed in the very mass of the animal; and that gradually as the Scolex-bud approaches maturity, it forces itself into the Brood-cell, being then connected with it merely by a short pedicle. Naunyn again, assumes that the Scolex-bud is originally formed as a solid protrusion, which from the parenchyma of the Brood-cell is growing inwards into the cavity, and thereby pushes the cuticle forward; that this protrusion afterwards becomes hollow in its posterior part, and that this hollowness communicates with the cavity of the parental cyst. The circlet of hooks and the suckers develop themselves on the foremost part. The Scolex-bud is very moveable during this stage of its development, and frequently presses outwards, by which means its central cavity is made to communicate with the cavity of the Brood-cell; and scolices thus forced outwards—according to his belief—have led to Leuckart's theory.

While the two above mentioned authors have principally made their experiments on the Echinococcus of animals, namely Leuckart on those in the hog and ox, and Naunyn on those in the sheep, whence also all their illustrations of the development are derived—my material has exclusively been the Echinococcus from the human body. Older spirit preparations were obtained from our museums, particularly those left by Eschricht, and besides these I have observed several cases of Echinococcus occurring here in Copenhagen during the last year; altogether four cases, of which three were those of Icelanders. In one of these instances, that of an Iceland-woman,

* The term cyst in its wider sense is here adopted as equivalent to that of vesicles, sacs, and cells of some authors.—F. v. M.
numerous Daughter-cysts were evacuated by puncture from a large liver-cyst; in two other cases, both also those of Icelanders, deceased of inter-current maladies, the Cysts were single and with scolices (5), the one of the size of a child's head, the other that of a goose-egg, and lodged in the liver. In one of these cases a compound Cyst of about the same size, with numerous Daughter vesicles, was also found in the sheath of the musculus rectus abdominis.

My investigations corroborate those of Leuckart, which are so well founded, and which he explained with so much force,—namely, that the Scolex formation always takes place in Brood-cells, developed from the parenchyma stratum of the Mother-cell, with which they remain continually connected. It will be remembered that not only the older helminthologist, but even von Siebold (who has the merit of having been the first to observe these Brood-cells), not only assumed such development of Scolices to take place from Brood-cells, but also their immediate growth from the Parenchyma-layer of the parental cyst. A similar view is also entertained by Huxley (6), and most recently by Cobbold (7). Nor can it be denied that deceptive appearances, which only seem to permit of the last mentioned assumption, actually do occur.

On those not very rare occasions, where only an individual Scolex is developed in the Brood-cell, the fine elastic cuticle of this cell is generally closed so firmly around the animal—especially when it has its coronet of hooks drawn in, that it appears to form a part of the animal itself; but under other circumstances, especially when the creature is well developed, and has the circlet of hooks extended, the cuticle is plainly seen to extend from the large curvatures, formed by the suckers, down towards the rounded posterior extremity of the animal, so as to close tightly round it. (Tab. 1, fig. 3.)

I will return to this circumstance when coming to the formation of Daughter-cysts, as even here appearances occur, which easily lead to misinterpretations. Respecting the real development of the Brood-vesicles, my investigations, excepting in a few less essential points, agree with Naunyn's. The knob-shaped first foundation of the Brood-vesicle, consisting of small highly refractive kernel-shaped bodies, forms not from the beginning a cavity, bounded by a cuticle, as generally supposed, but a transformation precedes, inasmuch as these kernel-shaped bodies in the interior of the knob are transformed into a more fine-grained mass, and the cuticle in this stage (Tab. 1, Fig. 1) is perhaps merely the optical expression for this alteration (8). But gradually while the cavity is developed, especially when the Scolex-bud commences to grow inwards, the contour becomes more defined, assumes the cuticular character (Tab. 1, Fig. 2), and bears on its inside a fine granular parenchyma-stratum, which on account of the exterior parenchyma, visible through the thin cuticle, is difficult to observe, but which nevertheless is present, as well in this stage as in the fully developed Brood-cell. This parenchyma-stratum bears the vessels, which pass into the stalk of the Brood-vesicle, and spread over its inside, so as to
enter every individual Scolex in the manner well known. After the rupture of the Brood-cells it is this parenchyma-stratum, that partly holds the Scolecic together. This is also mentioned by former authors, thus by Busk (9), who states that the heads of the Echinococcus are attached by short stalks to a common central granulary mass; but it is especially referred to by Huxley (10), whose drawings (Pl. xxix, fig. 8, 9) give the best and most faithful representations we on the whole possess of this vascular parenchyma-stratum, as well as of the whole Brood-cell. But his explanation of its development from the outside of the parenchyma-stratum of the maternal cyst and his opinion that the outwards forced and not yet wholly developed Scolex-buds are withered Scolecic perished in their development, are of course erroneous. Such ruptured Brood-vesicles, on whose parenchyma Scolecic are fastened all over, are those which are represented by Huxley (Pl. xxviii, fig. 4), and by him are regarded as a secondary cyst (11), with interior Echinococci, such as are developed in these secondary cysts, and exterior ones, which are free, developed from the inside of the parenchyma of the Mother-cyst, and which only by their accidental position on a spot, where the secondary cyst is developed, come to stand in relation to it. Thus while this parenchyma-stratum on the inside of the Brood-cell has attracted Huxley's attention to such a degree, that he nearly overlooked the cuticle, it is strange that such a distinguished investigator as Leuckart did not even mention it, especially as it is of the greatest importance for the formation of Daughter-cysts. I will now merely give a brief representation of the developed Brood-cells, without entering into details about the Scolex formation in them, in the principal points of which explanation, as above-mentioned, I fully agree with Naunyn, although I did not succeed in following him in all details, especially as regards the development of the hooks.

In their natural state they are placed on the inside of the Mother-cyst, fastened by a short and thick pedicle, which immediately passes into the parenchyma-stratum of the vesicle. The thin cuticle is tightly closed, adapting its form to its contents; up to thirty or more Scolecic by their shorter or longer stalks are attached to the interior granular stratum, which lines the inside of the cuticle. The real contents of the cell consists besides of Scolecic, of a limpid, or frequently granulous humour. The parenchyma layer is of different thickness; in some it is but feebly developed, merely as a sediment of the granulous humour; in others it forms a firm finely granulated cover of perceptible thickness and solidity. These differences depend perhaps on age. The vessels enter through the mainstalk, and spread on the inside like a large-meshed net, and a branch extends to every individual Scolex. Externally the cuticle is clothed with a single layer of small, indistinctly defined cells, with highly refractive kernels, and this layer increases in thickness towards the mainstalk. I did not see such fringed lobes on the outside of the Brood-cell, as described by Naunyn. Together with these attached Brood-cells there are others, but not particularly different, swimming about freely in the humour of the Mother-cyst; for the
Brood-cells are far from so tender as generally stated; they may even be found well preserved in spirit preparations years old. In others likewise free brood-vesicle Scolices are perceived in a commencing fatty degeneration with obliterated suction cups, and the hooks fallen away; others again are ruptured, and form more or less connected fragments.

The cycle is really closed with the development of Scolices, which are indeed the nurses to future Taeniae. But intermediate generations intervene in the meantime, inasmuch as in the primary cysts are developed secondary ones, in these again tertiary, etc., etc., which, however, altogether resemble in type the primary cyst, and only differ from it in their history of development. The formation of these secondary cysts or Daughter-cells is thus not an indispensable link in the development of the Echinococci; it is rather almost as a rule absent in the Echinococcus in animals, and when it is found, the scanty Daughter-cells are deposited outwards (Echinococcus exogenus, Kuhn; Echinococcus granulosus, Leuck), while the Echinococcus as it occurs in the human body, generally develops itself inwards, and fills the cavity of the Mother-cyst (E. endogenus, Kuhn; E. hydatidosus, Leuck). The Daughter-cysts may even be absent in the human body, as it was the case with the two Icelanders, to which I alluded, or both formations may occur contemporaneously; which was the case with the one Icelander, in whose sheath of M. rect. abdomen also was found another cyst with numerous larger and smaller Daughter-cells.

The Echinococcus as scolecipariens is on the whole well known, but our knowledge of the process of its passing into altricipariens, or forming daughter cysts, can only be considered as most incomplete. Former helminthologists, as Bremser, contended that the daughter-cells are formed from scolices, but they did not further indicate the mode and proceeding of this development.

Von Siebold and G. Wagner (12) put forward a similar hypothesis. Kuhn (13) observed a development of daughter-cysts in the cuticle of the mother-cyst. They should then develop either inward (E. endogenus), or outward (E. exogenus). Davaine (14) merely mentions that they are developed as buds in the depth or on the interior or the exterior surface of the mother-cyst, that they became hollow during growth, detach themselves, and at last become free. Eschricht (15) supposed, that the daughter-cells are formed by constrictions of the primary cyst, or are developed from brood-cells not ruptured; but he does not appear to have had any positive observations to rely on. Leuckart (16) at first thought, that the formation of the daughter-cells took place quite independent of the parenchyma stratum—in the centre of the cuticle, where granular accumulation was formed, that the latter became surrounded by fresh layers of cuticle, and gradually passed through the same development as the primary cyst, and that the mother-cell during growth was pushed on like a hernia-sack, which ultimately burst, and then the secondary cyst was liberated.

Leuckart mentions later, it had appeared to him, that daughter-
cells, formed in such manner, began to develop scolices sooner than
the mother-cyst.

Naunyn renders a description of daughter-cells, developed from
single scolices and brood-cells. In the first case he noticed a single
scolex, free or still enclosed in its brood-cell, swelling considerably,
the interior cavity increasing, while the walls of the body grew
thinner. That the animal is not thereby killed is indicated by
vivaciously oscillating the cilia, which invest the inside of the
cavity. This is gradually overrun by a delicate network, which
from the foremost—as yet compact—part of the scolex, partly
attaches itself to the side walls, and partly to the hindmost, like-
wise compact part of the animal. This network forms anastomoses
and larger nodules, in which are lodged bodies resembling fat-drops:
Hitherto the scolex is still surrounded by a thin structureless mem-
brane, but gradually—as it gets by the progressing increase of the
cavity, more and more the appearance of a cyst—the membrane
also increases in thickness, and becomes perceptibly stratified; the
suckers as well as the calcareous bodies* disappear, while the circlet
of hooks yet for a time holds together. By degrees disappear also
the anterior and posterior parenchyma masses, as they spread like a
thin layer of small granulated globules over the whole inside of the
cell, in which the previously mentioned network is still extended
from wall to wall. Thus we have at last a vesicle, almost resembling
the first acephalocystic stage of the original echinococcus, a cell
developed from the six-hooked embryo of the tape-worm, and only
the stray hooks betray the origin. Naunyn contends to have
observed cells developed in this manner down to the size of a hemp
seed, but he never succeeded in perceiving any scolex formation in
such cells; yet, on the strength of analogies, he considers himself
entitled to assume, that such will take place quite in the same mode
as in the mother-cyst.

The development of daughter-cells from brood-cells takes place,
according to Naunyn, in the following manner: the thin cuticle of
the latter thickens in an uncommon degree, and becomes stratified;
the enclosed scolices disappear by degrees, because their paren-
chyma, as in the first case, spreads on the inside, and forms a
granular layer, whilst the exterior cell-layer of the brood-cyst
contemporaneously disappears. Besides, the brood-vesicle can in some
place or the other become constricted, and one or both of the parts
thus detached become the origin of a secondary cyst formation in
any of the modes above mentioned.

These statements of Naunyn are founded especially on examina-
tions of the echinococci in sheep; but he states, also, that he has
found the same kind of development in those of the human body,
however, without offering further explanations. All the illustrations
are also from those in the sheep.

Since Leuckart became acquainted with this development of

* The translator is aware that the calcareous nature of these corpuscles
in their normal state is disputed.—Conf. Huxley, l. c.
scolices into cysts, he mentions (17) that he has found it corroborated by the first examination he made of an echinococcus in a sheep. He therefore considers it probable, that daughter-cells in echinococcus hominis are developed in the manner stated by Naunyn, while the development of daughter-cells in the cuticle, as represented by him, appertains to echinococcus veterinorum. Finally, he modifies so far his earlier opinion of the entire independence of the secondary cyst-formation from the parenchyma of the mother-cyst, that he, although rather on theoretical grounds than on direct observations, refers the first formed clusters of granules to an outbudding from the parenchyma of the mother-cyst, from which, however, it is speedily separated. Even Naunyn mentions, that he has met with a fine canal from the parenchyma stratum of the mother-cyst extending to secondary vesicles, lying in its way; and he thinks, therefore, that the formation of the latter always proceeds from the mother parenchyma, but that they may become disconnected during their growth. Finally, Cobbold (18) in his last work repeats Leuckart’s and Naunyn’s representations, and follows the latter, as regards the formation of daughter-cells. Moreover he, like Huxley, is of opinion that the entocyst (the parenchyma stratum) is able to produce single scolices, and that buds from this entocyst can be developed as well into scolices as into brood and daughter-cysts by diversification in an early stage; yet he has no direct observations or explanatory drawings, on which to base his opinion.

I shall next proceed to represent the manner, in which the daughter-cyst formations in the human echinococcus, according to my observations, apparently should be understood, and then offer some more general remarks about this formation. The daughter-cysts are formed either in an endogenous or exogenous manner in relation to the mother-cyst; but these two formations are not very different, and consequently can neither serve as foundation for any distinction of species, as Kuhn would have it, nor even of variety, for such formations may often develop themselves side by side. In cysts developed in an endogenous manner may be produced new cysts in an endogen as well as exogen way.

The endogen cyst formation proceeds only from brood-cells. We have seen that these already at an early stage possess the essential character of the echinococcus cyst, namely a cuticle with a thin parenchyma on the inside. Thus theoretically there is nothing opposed to the assumption that single brood-cells at an early stage, instead of forming scolices, are developed in another direction, or, so to say, continue the original one, and become daughter-cells. However, I have no observations to support such supposition. On the contrary, we may find in cysts of or above the size of a walnut (even, although exceptionally, in such of the size of a hazelnut) besides the usual brood-cells, others still attached to the parenchyma of the mother-cyst, or swimming about free in its humour, and these are distinguished by a conspicuous, granular parenchyma stratum on their inside. The cuticle begins soon afterwards to increase in
thickness, and becomes stratified, by which means the cyst gets more rigid and spherical, while it at the same time increases in size, and the exterior parenchyma vanishes (Tab. i. fig. 4). Scolices may still be very well preserved, but there are soon deposited abundant fat grains in their parenchyma, and the suckers are obliterated; the scolices vanish by degrees, but in such a manner that the anterior part with the circlet of hooks is preserved longest; next only this remains and some solitary parenchyma remnants and calcareous bodies (19); later only single hooks and calcareous bodies are found spread over the parenchyma; finally, even these disappear, and we have a little cyst, very much resembling the first acephalo-cystic stage of the echinococcus cyst, developed by transformation of the tenia embryo. It grows now in the same mode as the echinococcus cyst by depositing inward concentric cuticular layers from the parenchyma. I never succeeded with perfect certainty to find vessels in such cysts, at all events merely traces of such (Tab. ii, fig. 1 g), although they undoubtedly are present here as well as in the brood-cells; and it is probable that through these vessels the resorption of scolices takes places. In speaking of this development, it is not our question whether the parenchyma of the scolices enclosed in the brood-cell extends over the inside of the cell, and forms its parenchyma layer, as Naunyn represents it. Against this speaks strongly the circumstance that the parenchyma is present, the growth already in full progress, before the scolices show the slightest change, and when such at last takes place, it consists in a deposition of molecular fat grains in their interior (fatty degeneration), which here as well as everywhere indicates the death of the parenchyma, followed by dissolution, by which resorption is made possible.

Other daughter-cysts, developed from brood-cells in the same manner, are found divided into two by a straight or slightly arched partition wall, formed by the cuticle layers, and each of these partitions may now be developed in the manner above mentioned. This division, however, is rarely originated by a simple constriction of the whole primary brood-cell, although even divisions of the entire brood-cell occur, but rather by involutions of its parenchyma stratum, which now as usually deposits cuticle masses on the inside. For in some instances we find divided cysts (Tab. i, fig. 7) in which only one division is developed into daughter-cells, whilst the other continues to retain its primary appearance; its thin cuticle is seen continually to pass into the exterior layer of the decapsulated cyst, and this is a clear proof, that the interior layers must be formed from inward, consequently from the parenchyma, just at the partition wall itself.

Naunyn has an illustration (l. c. Tab. xvi, fig. 9), showing that he has noticed this also; however, he does not appear to have paid further attention to this circumstance, which, nevertheless, so to say, presents us with the key to comprehend the mode in which this daughter-cyst formation takes place. He merely says: "The wall of the brood-cyst becomes in one place or the other so constricted, that
its cavity becomes divided into two separate cysts; in the one or the other may secondary Hydatids be developed in the mode before mentioned." He explains: "That this encystation proceeds from the wall of the brood-vesicle; the brood-vesicle, however, does not encyst itself, but its contents; the essential parts of its wall (the exterior parenchyma cellules) do not enter into the formed secondary hydatid."

Naunyn thus takes it for granted, that the encysting layers are formed of the exterior parenchyma layer of the brood-cell, and, consequently, the interior layers of the latter become the oldest; but now if scolices have changed and formed the parenchyma layer on the inside of the thus encysted cell, in the manner he represents, then we may at all events imagine, that the growth of this is proceeding in the same manner as agreed to by himself and all the other observers; namely, that Echinococcus cysts generally grow by cuticular formations from the interior parenchyma, consequently in opposite direction to the original one; a circumstance that undoubtedly would be very strange. And, further, in what manner can we imagine the partition wall to be formed, which cannot—not even according to his drawing—come in any contact with the exterior parenchyma. According to my opinion the exterior layer of cysts does not play any essential part, but possesses rather an epithelial than parenchymatous character; besides it disappears early. On the contrary, it is the interior parenchyma layer from which life and growth originate.

Such constrictions of brood-cells with succeeding transformation into 'daughter-cells appear to take place several times on one and the same cyst. A preparation represented (Tab. ii, fig. 5) may serve as an illustration of this circumstance. The whole was found in a free state swimming about in a secondary cyst of the size of an egg, which was in a living state evacuated by the previously mentioned Iceland woman. It consists of a larger cyst (a) with stratified cuticle and enclosing several scolices just falling away; also a tertiary cyst, developed from a brood-cell. On different spots of this larger cyst are seen four smaller ones (b, c, d, e) with thick stratified cuticles, whose exterior strata cross those of the larger cyst, except one of them (d); all enclose several, up to nearly ten scolices, partly very well preserved and partly breaking up. Now the question arises, whether the smaller cysts may be considered as quaternary, developed from the larger tertiary ones by protrusion. This is hardly probable, for in such a case we must suppose, that scolices, in cells thus exogenously developed were formed independently out of the parenchyma, without intermediation of brood-cells; but this is contrary to all we know of the scolex formation, which certainly also commences at a much later stage in such quaternary cysts. What further speaks against such a relation of these cysts to one another as mother and daughters is this, that they are in nearly the same stage of development, only that scolices in the smaller ones are somewhat better preserved, but all of them are perceptibly on the eve of dissolution. I should, therefore, feel
inclined to explain this otherwise remarkable specimen as showing constrictions from a primary brood-cell, which doubtless must have been very large, and must have enclosed a considerable number of scolices. We may, also, think it possible, that their mutual relation is merely casual; that in an early stage they are brought into contact with one another through external circumstances and thus become agglutinated. The external contact of at least three of them with the larger cyst seems to support this supposition, while on the other hand it might be the approach of separation. At all events, the preparation seems to me to have a considerable interest.

Alongside of daughter-cells, developed in the manner above indicated, some are found, in which the cuticle is conspicuously thin, in proportion to the thick parenchyma layer, and it is sometimes ruptured, whilst the round form often is entirely preserved. We see then (Tab. ii, fig. 4) a greater or smaller number of scolices, united together and fastened to the abundant, granular parenchyma; some are still well preserved, in others the contours are obliterated by commencing fatty degeneration, and in others again only the circket of hooks seems to be left; in short, we have all the same changes which take place in the brood-cell on its transformation into daughter-cell; only the cuticle is wanting.

I should not have put forward such a case, unless a particular historical interest were attached to it; namely, an observation exactly in accordance with this was made by the eminent and keen observer Goeze in the first days of helminthology, but only published after his death by Zeder (20). It was in secondary cells of Echinococcus altricipariens, sent to him by Meckel, that Goeze—to his surprise—perceived this fact for the first time, which he represented (I. c. Tab. ii, fig. 5.) His own words are as follows:—"Wonder upon wonder! in a little piece of a pin's-head size, light yellow, round, oval and other corpuscles. Some, when magnified, as large as a Groschen. Here and there on the surface of one, fifteen distinct circles of hooks, on another three, yet on another five, and on some well nigh fifty; but no trace of suckers or of any corpuscle passing away. I conjecture there, that these have been such cells, as the many-bodied and many-headed vesicle worm in the brain of giddy sheep." Zeder adds the remark, that undoubtedly the vesicles thus described did contain two different species of cell-worms, viz., one appertaining to that met with in the liver of sheep, whether identical or not he leaves doubtful and another referable to the cenurus cerebralis (Polycephal. ovin. Zed.), met with in the brain of sheep. He cannot better explain this very striking circumstance than by declaring it to be "a freak of nature" (21). It is easily seen how this observation of Goeze's, which has originated so much confusion, until it is now nearly forgotten, could be the cause of apparently so grave a mistake. Goeze could neither perceive the half resorbed scolices nor those of which almost only the circket of hooks remained, and consequently he took them for such as were forced inwards in the manner known to him in the Ctenurus. But the
observation is perfectly correct; and a glance on Goeze's and my own drawings is sufficient to corroborate, that we have both had the same before our eyes; only, as a matter of course, the imperfect condition of microscopes in his time must be taken into consideration.

Probably such parenchyma remnants with scolices attached, are those which have induced earlier inquirers to suppose an independent development of scolices from the parenchyma of the parental vesicle; to this opinion, as already mentioned, assuredly even the occurrence of brood-cells with a single scolex have contributed. Then inquirers have also frequently confounded the first stage of the brood-cell formation—the knob-shaped protrusion—with the scolex-bud; a confusion, which seems to be indicated even by Wagner's drawings.

One of the most important and interesting questions in the development of the echinococci, is the daughter-cyst formation from scolices, which question, since the days of Bremser, was raised several times, and latterly was again resumed, and in detail discussed by Naunyn, whose statements are stamped with the great authority of Leuckart. Already, before Naunyn's work was known to me, I had found in the vesicles evacuated by the abovementioned Iceland woman, masses which I thought I could not explain otherwise than by a transformation of scolices into daughter-cells; and although, after having become acquainted with Naunyn's representation, I well might have supposed the development to take place in a mode somewhat different to that represented by him; I still did not entertain any doubt of the correctness of the facts. Therefore, when, after examination of numerous vesicles from different individuals, I have considered myself under the necessity of renouncing an opinion, so to say prejudiced, yet (at least I think so) the correctness of my altered opinion is corroborated, even when this opinion closely connects an apparent daughter-cyst formation from scolices with that from brood-cells, as above mentioned; or rather renders it identical.

(To be Continued.)

REPORT OF A CASE OF OPIUM POISONING, TREATED BY BELLADONNA.

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Early in last March a child aged three months was brought to me by its mother, exhibiting the following symptoms: Collapse, cold skin, with a clammy, beady perspiration; sluggish small pulse; slow, unequal breathing; somewhat stertorous; a livid countenance; pupils contracted to a pin's point; a twitching of the hands and corners of the mouth, with a faint, peculiar moan. This last symptom appeared to be involuntary; if the infant were pinched it would not cry and would scarcely flinch. The pupils were so contracted as to be unaffected by light.

On being questioned closely the mother admitted that a neighbour
had induced her to give a small quantity of crude opium, (such as is used by the Chinese), about five hours previously, to allay some pain in the bowels.

I obtained possession of the mass of crude opium; it was to all appearances fresh and active, and of good quality. A piece between two and three grains in weight had been cut off; this, the mother told me, had been administered to her infant, "whittled" finely up, with tobacco placed on the tongue, and washed down with a little water. When I saw the child it had been asleep for about four hours and a half, and the symptoms above detailed had only attracted the mother's notice for about three quarters of an hour.

At so advanced a stage of poisoning, the production of an emesis was not to be expected, and the child was too young to admit of the use of the stomach pump; however, having explained the improbability of an emetic being of the slightest use, I did give a full dose of Ipecacuan and Sulphate of Zinc without effect.

I had the child taken quickly home, a distance of half a mile, and followed at once. I then pursued the following course of treatment: A blister to the nape of the neck, sinapisms to epigastrium and calves of legs, with friction to the spine. The counter-irritants scarcely roused the child at all, the stinging of the mustard not producing much drawing up of the legs and no cry. I gave half a grain of extract of Belladonna (P. B.) in solution, and ordered the friends to keep up a constant slapping of the breech and that the infant should be walked about in the open air.

At the end of the first hour the circulation was much restored, the pulse had risen and the pupils were not so much contracted. The breathing was less laboured, and the skin had lost much of its clamminess. The Belladonna draught was repeated.

At the expiration of the second hour, the pupils were no longer contracted, but were beginning to dilate; the child was becoming fretful, though still kept awake with difficulty. The circulation was more vigorous. Ordered a plunge bath of cold water, friction to surface of body, and a third dose of the extract; the walking about and slapping to be continued as before.

At the end of the third hour the child was quite awake, knew its mother, and took the breast; the pupils were broadly dilated and the symptoms of poisoning had disappeared; I therefore administered a stimulant and allowed it to sleep. The next morning it showed no ill-effects from its attack or the treatment resorted to, and it is at this moment a healthy thriving child.

In reporting this case I do not lay claim to the slightest originality of treatment, neither do I purpose, at present, to discuss the interesting speculation, as to how the action which the one poison exerts upon the brain, undoes the mischief which the former poison has effected. The employment of Belladonna in cases of opium poisoning, and the antagonism of the one drug to the other, have been the subject of essays and reports, both in Europe and America, for at least fifteen years, but I observe that it has not found favour either as a therapeutic agent or as an antidote with the general mass of
practitioners, and that authors of treatises on toxicology either omit to mention its use as a counter-agent to the effects of opium, or lay very little stress upon its merits, so that it is possible there may be some members of the profession who are unacquainted with, or sceptical as to its value. I have therefore thought it might be interesting to record a successful case of opium-poisoning treated by Belladonna; it is the first case in which I have so employed it, and I confess I should have hesitated before resorting to such a remedy had the case been less desperate. Though I am conscious of the impropriety of arguing on the efficacy of any plan of treatment on so slender a basis as a simple case, however successful its issue, I think this one is worthy of consideration as affording some attestation to the value of Belladonna as a quasi-antidote.

Since writing the above (in October last), I have read with much interest, two cases of opium-poisoning under the care of Dr. Radcliffe, at the Westminster Hospital, in which Belladonna was employed as an antidote (vide Lancet, 5th Sept.). The notes have rather disappointed me, inasmuch as they are too meagre and vague. The cases, too, present marked differences to that reported in this paper. The patients, two women, aged respectively 39 and 60 years, were hardly fair subjects for a proof of the efficacy of the antidote. The first, Ellen H., was scarcely under the influence of opium, certainly not narcotized. She had taken three drachms of laudanum a quarter of an hour previously; the symptoms were "partial sensibility, cold skin, pulse small, and slightly increased in frequency, breathing shallow, pupils very much contracted and fixed, was very sleepy, and said there was a mist before her eyes, and she could not see." Emetics and expergefacients were at once employed, and we may suppose with effect, since we are not told to the contrary. Counter irritants and stimulating enemata were also exhibited, as well as ten minims of tincture of Belladonna. It is reasonable to suppose that the stomach was emptied before the Laudanum could have done much mischief, and that the measures used to recover the patient from the collapse were sufficiently successful. That Ellen H. was allowed to sleep, "being roused frequently by the nurse," instead of being kept walking about, is a proof that the medical officer in charge did not attach any real importance to the case. The doses of Tincture of Belladonna were the reverse of heroic, and we may fairly argue that the fever and dryness of throat suffered by the patient on the morning of the 12th August, about twenty hours after admission, was the result of persistence in the use of the tincture. This view of the case is strengthened by the report:—"2 p.m.—Repeat the tincture every four hours. 6 p.m.—Throat very dry, numbness and sensation of swelling in the hands and fore-arms." The patient was evidently falling into the opposite extreme—viz., poisoning by Belladonna, and so her medical attendant discovered, for we read—"Ordered to omit the mixture," after which a subsidence of the symptoms is reported, and the patient becomes convalescent.
Martha G. (set. 60) seems to be an old lady who is pretty well used to her narcotic dram; the two tablespoonfuls of laudanum, bought for sixpence, was not the first investment in opium which she had made in the course of a long life. She was admitted to the Westminster Hospital on the 11th August, having taken the ounce above referred to about twelve hours previously. She "was insensible, but could be roused by shaking; skin cold, pupils contracted to a pin's point, pulse feeble, breathing very shallow," &c. An emetic "introduced by the stomach-pump" is ordered; stimulating enemata, rubefacients over epigastrium, and ten minim doses of Tincture of Belladonna every half hour. This is a much better case, for the old woman is narcotized; and were it not that the circumstances lead us to suspect she had been used to laudanum, and had probably exceeded her dose, the case would be very confirmatory of the value of Belladonna in such cases. But considering that the pupils were only "slightly dilated," after nineteen doses of the tincture administered every half hour, I am by no means satisfied that Belladonna had so much to do with her recovery as the stimulants given, and the warm bed and hospital comforts to which she was probably unused.

I have forborne to make any comments on my case, and only criticise Dr. Radcliffe's because of the Lancet's introductory remark, "The interest of the following cases lies in the employment of Belladonna as an antidote to opium." I think, however, my case is more valuable, because no treatment was employed other than simple stimulants and Belladonna, to the agency of which I certainly attribute the recovery of the patient.

Bathurst, N.S.W., December, 1868.

MEDICAL SOCIETY OF VICTORIA.

THE ANNUAL DINNER.

This event took place on Wednesday, Dec. 23rd at Scott's Hotel. There were present: Dr. Bird, Mr. Avent, Dr. Bowen, Mr. Blair, Dr. Fulton, Dr. Hunt, Mr. Serrell, Mr. Gillbee, Dr. Haig, Dr. Martin, Dr. Jonasson, Dr. Cutts, Dr. Thomas, Dr. P. Smith, Mr. Ellery, Dr. Neild, Dr. Tracy, Dr. Black, Dr. Bayldon, Dr. Nicholls. The president, Dr. Neild occupied the chair, and Dr. Bird and Dr. Jonasson, the vice chairs. The dinner was excellent and was highly creditable to the new proprietor of this hotel, Mr. W. C. Wilson.

The loyal toasts having been disposed of, the "Army, Navy, and Volunteers" was proposed by Dr. Cutts and responded to by Dr. Bird, Dr. Black, and Mr. Gillbee, respectively. In the course of his remarks, Dr. Bird drew attention to the small amount of sickness in the recent Abyssinian war, in consequence, mainly of the excellence of the medical arrangements. The Rev. Dr. Bleasdale proposed the "Medical Society of Victoria," to which the President responded.
Dr. Bayldon proposed the "Medical School of the University," and referred particularly to the advantages of a small school as compared with a large one, owing to the obviously greater facility of communication between teachers and pupils. He reproved the too common practice of estimating the value of a school by a purely commercial standard, and pointed out the fact that some of the best known teachers in London were connected with small schools. Dr. Tracy in responding, expressed his conviction that the principles upon which the Medical School of this colony had been started, could not but procure its eventual success. He thought there was every reason to be satisfied with its progress up to the present time, and equally good reason to be hopeful as to the future. He regarded as a peculiar source of satisfaction, the imperative necessity insisted on, of a preliminary groundwork of general knowledge, and he regarded as a compliment the objections that had been taken against the rigorous tests prescribed in the admission of candidates for medical degrees in our University. "The Australian Medical Journal" was proposed by Dr. Martin, and responded to by the editor, Dr. Neild, who referred with great satisfaction to the present prosperous condition of this journal, during seven years of whose career he had been the editor. "The Office-bearers of the Society," was proposed by Dr. Haig and acknowledged by Dr. Jonasson, the junior Vice-President. "The Honorary Members," by the President, responded to by Mr. Ellery. "The Ladies," by Dr. Fulton, responded to by Dr. Bowen. This concluded the formal list of the toasts and the remainder of the evening was spent in that pleasantly convivial manner which furnishes not the least part of the enjoyment on these occasions.

ANNUAL MEETING.
WEDNESDAY, JANUARY 13, 1869.

Present: Dr. Tracy, Mr. Blair, Dr. Fetherston, Dr. Nicholls, Dr. Bowen, Dr. Fulton, Dr. P. Smith, Mr. Beaney, Dr. Black, Mr. Avent, Dr. Haig, Mr. Gillbee, Dr. Bird, Dr. Martin, Dr. Thomas, Dr. Jonasson, Dr. Neild, Dr. Hunt, Dr. Graham, and Dr. Lilienfeld. The President, Dr. Neild, in the chair.

ELECTION OF NEW MEMBERS.

Dr. Moloney was elected an ordinary member of the society.

ANNUAL REPORT AND BALANCE-SHEET.

The Honorary Secretary read the Annual Report, which showed a steady increase in the numbers and prosperity of the Society. The balance-sheet furnished by the Treasurer showed a sum of £50 16s. 1d. in hand. On the motion of Dr. Haig, seconded by Mr. Gillbee, the report and balance-sheet were adopted.

ELECTION OF OFFICE-BEARERS.

The election of office-bearers for the year 1869 was then proceeded with, the following being the result: President, Dr. Bird; Vice-
The retiring president, Dr. Neild, then read the following valedictory address:

GENTLEMEN,—If I do not express to you as warmly as I feel, the very grateful sense I entertain of the honour I have enjoyed during the past twelve months, be good enough to account for my seeming insensibility in any way, rather than by attributing to me a lack of gratitude for the distinction you conferred upon me. Believe me that I entered upon the duties of the important office of President of the Medical Society of Victoria, very distrustful of my ability to discharge them consistently with the dignity of the position with which they were associated. I am sure no one could have the interests of the Society at heart more than I had, but just in proportion as I was conscious of what was due from me, I felt how many reasons there were why I might fail in fulfilling the trust placed in my hands. I hope, however, that I have not been entirely wanting in my duty, and I am sure I have never for one moment wavered in a determination to endeavour to perform it.

I think I may fairly describe the past year as having been a somewhat troublous time in local medical history. The profession has been, during several periods, conspicuously before the public, and there has been a good deal of strong feeling at times exhibited. For many of us, it has been anything but a dull time, and if perturbation and enjoyment were convertible terms, we should have passed an extremely jocund year of it. Nobody can say that we have been generally apathetic, or inactive. There has been a good deal to think about and a good deal to say, and much of what has been said has been of a determined sort. Indeed, if words had been material weapons, some heads I fear would have been damaged. Now and then the lay and medical elements have come into antagonism, as in the instance of the committee and honorary staff of the Melbourne Hospital, wherein, as I think, a most improper attempt was made to dictate to the latter in the treatment of patients. Then occurred a complicated dispute of another kind, in which the resident staff of this institution were the subject of treatment which would have been ludicrous if it had not been seriously unjust. Following upon this dispute came another, in which imputations of malpraxis were somewhat freely flung about. This ferment had hardly subsided when the medical jurist question presented itself, but in this controversy the lay element had no part. For this reason, probably, the contest was all the warmer, and it eventually, on one side at least, took a character of violent fury which became at last amusing. Indeed if one had judged by the needless demonstrations of alarm that were shown, it might have been supposed that some terrible
conspiracy had been formed, to endanger the liberty and lives of a certain section of the profession. The terror exhibited was of that grotesque kind which never fails to be extremely diverting, and it was all the more so by reason of the almost frantic manifestation of that sort of valour, which expends itself in wild gesticulations and loud threats. For myself who happened most innocently to have become the object of much of this objurgation, there was nothing but wholesale denunciation, until at last I began to fear that, by some diabolical transformation, I had been changed into a very vile plotter against the whole profession. One dreadful crime I confess was clearly proved against me, and this was alleged to be sufficient to disqualify me, not only for the office of medical jurist, but also for any other post of honour in the profession; so that I have been reproaching myself bitterly for having so far encroached upon your good nature, as to accept the distinction which this evening I cease any longer to hold. The crime I mean is that of having some sort of literary leanings, other than those connected with medicine. To this serious offence I plead guilty. It is most true that for a score of years at least, I have written all manner of things for the daily, weekly, monthly, and quarterly press. Leading articles, criticisms, sketches, tales, reviews, reports, verses, paragraphs, letters innumerable, I have given to the world, and I am horrified to learn that the writing of these, has rendered me an impostor and perhaps a criminal! It is no use pleading in extenuation that others have done the same thing before my time. The act I find is an unpardonable sin, and I suppose I ought to abandon hope and throw myself upon your mercy; only as I cannot give you any assurance that these offences will not be repeated, I suppose I must remain under the imputation of being incorrigible as well as wicked. It is, however, some comfort to feel that if to have combined medicine with literature renders me deserving of being condemned to infamy, I shall be infamous in excellent company, inasmuch as there is a very noble band who, while cultivating medicine with more or less success, have left enduring records of their greatness in general literature. Indeed I have sometimes thought that a medical man is especially qualified to write of what is done, and suffered, and enjoyed in this world. None better than he have the opportunity of seeing the world under its varied aspects. It is in the very nature of his profession to qualify him for observing carefully and reasoning closely. He sees what other people pass by or only casually notice, and he sees a great deal of human nature unqualified by conventional disguises. I think too the very activity of mind necessary to fit a medical man for performing properly the duties of his profession, prompts him often to take up also subjects having no necessary connection with them. From the time of Celsus, who, besides writing on medicine, wrote, as I need hardly tell you, also on the military art, on rhetoric, and on agriculture, physicians have employed their leisure on an infinite variety of non-medical subjects, and I believe in this city.
there are not a few instances of gentlemen of undoubted professional abilities, whose tastes and sympathies have led them into the pleasant bye-paths of art and science. I trust to be pardoned for making this allusion to what may seem exclusively private and personal, and in doing so I am not forgetful of the adage which tells us that an excuse is sometimes the acknowledgment of blame. But you are not unaware that an ungenerous allusion has been made to the fact of my having been engaged in literary occupations, and that a conclusion has been drawn therefrom, that I must therefore be unfitted for strictly professional duties, and as a consequence out of place as president of a medical society. Your having raised me to that honourable position, however, is I think the best assurance that I had not disqualified myself for the distinction, and I trust my conduct during the year of my office, has been such as to cause no regret in your minds, that you selected me for it.

I am glad to think that the Medical Society of Victoria has now attained to that sort of permanency on which it may fairly base its expectations of steady and progressive usefulness. It has passed through its early stages of immediate success, temporary decadence, storms, perturbations and seeming inactivity, and for some time past, its members have worked earnestly together with a hearty good will, and an obvious determination to carry out its purposes as expressed in the rules, namely, "The promotion of all branches of medical science, and of the general interests of the medical profession." The roll of the Society at the present time shows a list of fifty-seven members, including the honorary members, of whom two only are not in the medical profession. Of the list, thirteen have been added during the past year. I am happy to say that no death has occurred during my presidency, and the lessening of our numbers from other causes has been very inconsiderable. We have met fourteen times, and there has been an average attendance of thirteen, the highest number being nineteen, and the lowest six. This increase in our numbers is the more remarkable, from the fact that the numbers of the profession have considerably diminished; for though there have been added to the medical register twenty-five names, there have been erased, by reason of death and other causes, thirty-nine; of the twenty-five additions, nine were reregistrations, and two were the names of gentlemen not practising in the colony. The result shows that the new register for 1869, about to be issued, will contain twenty-five names less than that of last year. For the Medical Society, therefore to have increased in the face of a diminution of the whole profession, is I think most agreeably demonstrative of its real prosperity.

The mode in which the Society has been occupied is not less corroborative of this truth. The papers read have been of a most useful and therefore valuable character, and the discussions upon them have brought together a large amount of personal experience, the knowledge of which cannot have been other than extremely acceptable to each one of us.
Taking the papers in their order I find they have included the following:

On the Treatment of Abscess and Compound Fracture by Mr. Lister's Method: by Mr. Gillbee.
On Preserved Meats: by the Rev. Dr. Bleasdale.
On a case of Lithotrity: by Mr. MacGillivray, of Sandhurst.
On a case of Asphyxia, from the inhalation of Carburetted Hydrogen: by Mr. Gillbee.
On a new method of treating Spinal Deformities: by Mr. Lempiere.
On a case of Diphtheria, in which the xylostyptic ether was successfully used: by Mr. Blair.
On the Deposit of Fat: by Dr. D. J. Thomas.
On a case of Cancer: by Mr. MacGillivray, of Sandhurst.
On a case of Death under Chloroform: by Mr. Rudall.
Some remarks on Diphtheria, with cases: by Mr. Blair.
On a case of Thrombosis of one of the brachial veins: by Dr. Bird.

On two cases of Lithotomy, performed by the semilunar incision: by Mr. Gillbee.
On a case of Hydro-Pneumo-Thorax: by Dr. Bird.
On Diphtheria: by Dr. Day.
On some points connected with Diphtheria: by Dr. Thomas.
On a case of Obscure Abdominal Tumour: by Mr. Gillbee.
On the cases of Disease recently arrived by the Dayspring: by Dr. Bird.
On a new Blood-test: by Dr. Day.
On Preserved Meats (second paper): by the Rev. Dr. Bleasdale.
On the modern treatment of Pulmonary Consumption: by Dr. Bird.

Mr. Gillbee has exhibited some interesting cases of fracture of the skull. Mr. Blair has exhibited a new operating chair. Dr. Patrick Smith has exhibited a preparation of aneurism of the aorta. Mr. MacGillivray an example of scirrhus of the sigmoid flexure; and Mr. Ford has forwarded a uterine tumour expelled by ergot.

It is not uninteresting as showing how men engaged in the same calling may be working in a parallel direction, though remote from each other, that Mr. Blair's treatment of Diphtheria by the xylostyptic ether is substantially that adopted by Dr. Wynn Williams, as recorded in last year's volume of "The Obstetrical Transactions"; and Mr. Blair is I think freed from the imputation of plagiarism by the fact that the volume, containing the report of Dr. Williams's cases, did not reach the profession here before August, while Mr. Blair's cases occurred not later than May.

The Society has also met specially for the purpose of expressing an opinion upon the desirability of there being officers appointed to conduct the post-mortem examinations in cases of inquests; and this meeting gave rise subsequently to some curious professional complications, and the subject was made to afford the occasion of
unnecessarily acrimonious controversy, in which the disputants on one side appeared to abandon argument as unnecessary, and take to abuse, in the use of which, to do them justice, they showed themselves exceedingly familiar. And while on this question I may remark that the real merits of the subject discussed, remained exactly as they were. It was not disproved, nor is it likely to be disproved, that it is better to entrust particular duties to those persons who have made themselves intimately acquainted with the mode in which it is proper to perform them, than to those who are of necessity only casually acquainted with them. So far as the Medical Society is concerned, however, I am but too happy to say that the discussion was conducted with a complete freedom from personalities; and I may here be permitted to say that throughout the whole of the year, in which I have had the honour of presiding, the discussions have been of the most friendly character. I do not remember one unpleasant word having been spoken at any time. As a matter of course there have been differences of opinion, but I need hardly say that it is one of the purposes of a scientific society to elicit differences of opinion. Quot homines tot sententiae is an adage so old, that it is almost necessary to accompany its quotation with an apology, but though old it is none the less a truth; and in the non-medical mind it is an especial truth as regards our profession. The misfortune is, however, that difference of opinion is frequently regarded as the equivalent of personal antagonism, and in this way are to be explained many of those unfortunate dissensions which are the reproach of our order. We belong to a calling which has been described by more complimentary epithets than almost any other, and I should be the last to say it does not deserve all the praise it has received these many centuries past; but it is only a sad truth to confess, that though the science of Medicine is a noble one, its cultivators are not always ennobled by it.

It would be little short of an impertinence if I were to offer any arguments to show that a Society such as ours, serves an important use in the profession; but it has sometimes been demanded of me what advantage is to be gained by belonging to our Society, and as we possess no building of our own, and as our library is deprived of its utility by the altogether unsuitable place in which it is kept, I have been less prepared for a reply, than if I had been able to point out as our local habitation some appropriate structure among the visible institutions of the city. My answer, however, has been to the effect, that there cannot but be mutual benefit from the regular assembling together of men pursuing a common calling, and that in a science like that of medicine, which is so especially progressive, it is of the last importance to keep up a regular interchange of ideas, so that the experience of each one shall become the common property of many. The mere publishing of a paper may, it is true, evoke a written controversy, but a verbal discussion possesses many advantages over a written one, more particularly in the readiness it affords for prompt explanation. Moreover, a consciousness of the necessity of
being prepared for discussion, is a useful incentive towards keeping up the knowledge necessary for this purpose; besides which a recollection of the means of making known the results of one's experience, no doubt often prompts a medical man to keep a record of cases which otherwise, however interesting, might be unchronicled, and so lost to the great mass of ever accumulating knowledge.

I need hardly say how many collateral advantages arise out of our regular association. Professional intercourse supplies an antidote to many of those unreasoning prejudices, to which we are all more or less subject, and not seldom enables us to discover good qualities in those with whom, failing a more intimate knowledge of them, we might for ever remain in unexplained antagonism. But on the more material grounds of self-defence, and the means professional union affords for enforcing the rights and privileges which belong to us as an associated body, a society like ours, possesses a very high practical value. I am aware that the advantages possible of attainment in this way, have not by any means been secured to the extent to which they might have been made certain, but it is not a little good to have gained, in that we have the organised means ready at any time thus to be made use of. I do not think the Society has hitherto quite fulfilled its uses as a conservator of professional rights. There has existed a fear, perhaps a very natural one, that by giving attention to medical polity, medical science might suffer neglect. But I believe this to be a groundless fear. I submit that the very consciousness of being secure in the possession of what is due to us from the public and from governments would make us more earnest, because more interested, in the cultivation of the scientific part of our profession. I know that professional success does not invariably follow professional competency, but it would at any rate be reassuring to feel that, being certain of the ability to succeed, we were not deprived of the opportunity, and it will hardly be denied that at present, the opportunity is limited in many directions, by certain social hindrances, which an effective combination among us would help to remove. It was a strong consciousness of this truth which led some of us during the past year, to endeavour to organise a society whose functions should consist exclusively in watching over the material interests of our order, and in defining our ethical relations to each other. As I was somewhat closely concerned in this movement, I may perhaps be permitted to avail myself of this opportunity of saying that I, and I am sure with one exception those who acted with me, were moved solely by the desire to benefit the whole profession; and I can but regret that our motive was so far misunderstood, that a good deal of opposition was unnecessarily offered to us. The particular direction which the opposition took was on the question of club-practice, a system which, though not of necessity bad in itself, has been so seriously abused, that it threatens at no very distant period to submerge the profession. Throughout the whole of the controversy which took place upon this subject, I heard no argument capable of disproving the truth, that club-practice
as it exists in this colony, is a great wrong done to the whole profession. I am sorry to have to say it, but I am nevertheless obliged to declare, that the wrong is submitted to for the sake of a temporary and not very considerable advantage, and that as the number of friendly societies is every year increasing, the difficulty of reforming the abuse is, therefore, continually growing greater. More clubs require more medical attendants, so that what with those who voluntarily accept this condition of professional servitude, and those who perforce are driven to the necessity of recognising it, very soon ordinary private practice will be at an end, and nothing will remain but club-patients and club-doctors. A consciousness of this impending condition of things helped very largely to originate the Medico-Ethical Society movement, but a strong determination to persevere in the retention of a questionable advantage, prompted an active opposition to it, while an apathy on the part of the rest of the profession, left the comparatively few promoters of it unsupported. The project for all that is not dead, and as the necessity for such an organization will be increasingly apparent, I am confident of its restoration at a future day.

Of another organization which three years ago grew out of our Society, I am glad to be able to speak more hopefully. It is true the Medical Benevolent Association represented such neutral ground that there was no room for controversy. To relieve misfortune is such an obvious duty, that it needs no argument to prove its obligation, the only question being the providing of the means with which it is to be fulfilled. These, I am happy to say have so far not only not failed, but have become better each year, and it is one of the sources of great satisfaction to me that I was closely identified with the initiation of the Medical Benevolent Association; for the unmixed satisfaction which cannot but arise from being engaged in an undertaking which ministers to the misfortunes of our fellow practitioners, helps to balance many of the annoyances incident to an active occupation like ours.

In retiring from the office of President of this Society and becoming again an ordinary member of it, I am still conscious of possessing a great honour. For among its members are included gentlemen whose professional labours are recognised throughout the scientific world. It was only the other day that I caused to be published in the Medical Journal, a communication from Professor Taylor to Dr. Day, of Geelong, in which a high compliment was passed upon that gentleman for his researches in connexion with a new blood-test. I find too in recent European journals testimony to the efficacy of Dr. Day's treatment of diabetes by the ethereal solution of peroxide of hydrogen. Of my successor, Dr. Bird, I cannot speak too warmly, not only for the intimate knowledge he has displayed of a certain class of diseases, and in which he is now a recognised authority at home, but for the grace of style which distinguishes his writings. Dr. Tracy has deservedly made his name famous by his performance of ovariotomy, of which he now numbers five perfectly successful cases. To
Mr. MacGillivray, of Sandhurst, the Society and the profession are greatly indebted for many papers, displaying an amount of minute pathological knowledge, that all may admire but very few can emulate. Professor Halford's indefatigable efforts in the prosecution of a variety of the most interesting experiments, entitle him to the warmest congratulation, and his latest discovery of what I may term the specific treatment of snake-poisoning by ammoniacal injection, cannot but distinguish very honourably this Society of which he is a member. The highly practical and carefully digested papers of Dr. Thomas, have always been listened to by us with great interest. Our honorary members include Dr. Von Mueller, whose scientific reputation is literally world-wide; Mr. Ellery, whose high worth has just been recognised by his being elected for the fourth time President of the Royal Society of Victoria, and Mr. Ralph the interesting results of whose labours as a microscopist have frequently been placed before you. With these, and many other gentlemen, I have felt it a great privilege to be associated, and I hope long to possess the gratification of working and communing with them.

With such materials, and with the prestige growing out of many years of success, I am sure this Society cannot fail to work out its great uses. For myself, I have earnestly desired that it should be not only a Melbourne Society, but, as its name imports, a Society of Victoria. In view of this more complete carrying out of its purposes, the rules have been altered so as to remit the entrance fee in the case of gentlemen residing more than twenty miles from Melbourne, and to render unnecessary the production of the diplomas of candidates on the Register of the Medical Board. I should be glad, indeed, to see the Society develop into something more nearly resembling the British Medical Association which embraces the profession throughout the three kingdoms. A freer communication, and a more frequent meeting together of the whole body of practitioners in this colony, would be greatly advantageous both for the material and scientific interests of the profession. Questions are continually arising which require for their determination the results of observation of many thinkers. The present controversy, for example, arising out of the doubt as to the true nature of the exanthematous disease at the west end of this city, might be most profitably discussed by the whole body of the profession, and though there is now no absolute hinderance to the whole profession taking it up, there would be a special inducement to discuss it, if the discussion were conducted systematically, so as to bring the experience of those at a distance together into one common fund. This union of effort in scientific inquiry has been increasingly manifest of late years in Europe. There has been a pulling together of scientific bodies, and the results have been singularly illustrative of the familiar adage of union being strength. I am sure that a great deal is continually lost for lack of a disposition to recognise this principle. In this colony especially, where the population is scattered, and where many medical men are utterly cut off from any professional association, there is neither the inducement nor the means to keep alive the
spirit of scientific inquiry, and the habit of close observation. There are instances, no doubt, in which enthusiasm has become dead, if it ever existed, and where the practice of an art described as Godlike, has degenerated into the exercise of an occupation, little better than ordinary storekeeping. I can conceive it possible indeed for a medical man to have become an unreasoning dispenser of his own equally reasonless prescriptions, and not to feel the real professional degradation of such degeneracy. But, on the other hand, I know that there are men of high attainments pursuing a profitless practice in thinly-inhabited neighbourhoods; men who have hoped for distinction and fame, and who deserved both, gradually sinking into the torpor of despair at the consciousness of their having no means of keeping up professional relations with their more advantageously circumstanced brethren, and it is among these that I look for accessions to our Society. And I would here remark on the desirability of our having a greater number of short papers. I believe many gentlemen are deterred from writing, by the apparent necessity there is of making an essay of the subject. Nothing is a greater mistake than to expand a paper, simply for the sake of giving it a more pretentious appearance. I should be glad at every meeting to see a pile of correspondence consisting of suggestions, briefly narrated facts, and queries. A score of such letters might not take half an hour to read, and they might furnish the materials for prolonged thought. Hardly a day passes in the experience of any man with even an ordinary practice, in which some exceptional symptom, some effect of idiosyncrasy, some constitutional peculiarity, some unexpected change in the train of morbid manifestations, is not observable. Matters of this kind are frequently regarded as too trifling for record, but when it is remembered how slight a circumstance has sometimes led to the most valuable discoveries in medicine, it would be rash to say that any appearance, however trifling, is unimportant. If gentlemen in remote country districts would but make notes of every circumstance, even of a slightly exceptional kind, they might haply add very largely to the stores of that information from which the principles of our complicated science have been obtained, and I avail myself of this opportunity of earnestly inviting them to work with us in this way.

You will pardon me, I am sure, if I refer to the connexion now for seven years existing between myself and the Journal which records the transactions of this Society. For a publication with such a necessarily limited circulation, to have reached the fourteenth year of its existence, is an interesting fact in colonial periodical literature. This comparative longevity, however, has not been reached without its having experienced many difficulties, and a great deal of abuse. If foul words had been fatal to its existence, it would have expired long ago. I find it is one of the crimes I have committed that I have done my best to keep the Journal alive. I have had no object in doing so other than to benefit the profession, and I can only regret that the profession has not seen fit to make all the use of the Journal it might have done. The Journal, notwithstanding all that
has been said to the contrary, has had no bias; and its pages have been at the disposal of any gentleman desirous of recording any interesting facts occurring in his practice, or of drawing attention to matters relating to the general interests or ethics of the profession. I am happy to know that the Journal has taken its place among the recognised medical periodicals of the world, and that its papers are frequently republished in Europe, in proof of which I may mention the reprinting in a Vienna journal of a portion of Dr. Jonasson’s paper on Uræmic Convulsions. Mr. MacGillivray’s carefully written essay on Hydatids, too, was extensively referred to in the home periodicals, and there is hardly a volume of Braithwaite’s Retrospect which does not contain some extract from our pages. I may, therefore, be pardoned for saying that as an inducement to gentlemen to contribute to it, there is not only the obligation of duty to add something to the sum of medical knowledge, but the advantage of becoming known to the whole body of those cultivating and practising the healing art. I hope the prosperity of the Society and the Journal may progress pari passu.

Permit me to thank you very cordially for the courtesy you have shown me on the several occasions when we have met together during the past year. I have already said that our meetings have been invariably distinguished by the most pleasant and friendly feeling, and I have, in consequence, experienced no difficulty in the exercise of my own duties. No complication has arisen requiring the disagreeable interference of presidential authority, and I shall always look back upon my year of office with unimpaired satisfaction. My best efforts shall be devoted to advancing the Society, both as to increase of numbers and the enlargement of its usefulness. Both of these are possible of accomplishment, and I hope long to enjoy the privilege of association with a Society, whose records demonstrate how much good it has already done, and whose constitution fits it for the accomplishment of still higher achievements.

THANKS TO RETIRING OFFICERS.

Dr. Tracy proposed, and Dr. Black seconded, a vote of thanks to the retiring president, and complimented him highly upon the uniformly agreeable relations which had existed between him and the members of the Society. This having been carried, the services of the other retiring officers were similarly acknowledged; and after the gentlemen newly elected had expressed their thanks the proceedings terminated.

LIST OF MEMBERS.

The following is the list of members of the Society:—

Avent, Nicholas, M.R.C.S., L.S.A.
Barker, Edward, F.R.C.S., M.D., Melb.
Barrett, James, M.R.C.S. and L.S.A.
Beaney, James George, F.R.C.S. Ed.
Bird, Samuel Dougan, M.D. St. And. et Melb., M.R.C.S., L.R.C.P. Lond., and L.S.A.
Blair, John, L.R.C.S. Ed.
Bragge, John de la Roche, M.R.C.S. and L.S.A.
Clutterbuck, James Bennett, M.D. Erlang., L.S.A. Lond.
Cobb, John Frederick, M.R.C.S.
Day, John (Geelong), M.D. Giess., M.R.C.S.
Fletcher, Edward, M.R.C.S., Eng.
Girdlestone, Tharp Mountain, F.R.C.S. Eng.
Graham, George, M.D. Melb., M.R.C.S. Eng.
Gray, Andrew Sexton, M.R.C.S. Eng.
Haig, William, M.D., Maryland, U.S.
Hunt, Edward, M.D. Glas. et Melb., M.R.C.S.
Jackson, Henry Gilbert, M.R.C.S.
Jackson, James, M.D. Lond. et Melb., M.R.C.S.
Jonasson, Herman, M.D. Wurzburg et Melb.
Lilienfeld, Bernhard, M.D. Marburg et Melb.
Martin, Lawrence Joseph, M.D. Melb., L.R.C.S. Ed. and L.A.H.D.
McCarthy, Charles, M.D. Melb. and L.F.P.S.G.
MacGillivray, P.H. (Sandhurst), M.A., M.R.C.S.
Molloy, William Thomas (Balmoral), L.K. and Q.C.P.I., L.R.C.S. Ed. and L.A.H.D.
Moloney, Patrick, M.B. Melb.
Motherwell, James Bridgeham, M.D. Glas. et Melb. and L.R.C.S.I.
Moussé, Antoine, M.D. Franc. et Melb.
Nicholls, Austin Huitson, L.R.C.P. Ed., L.R.C.S. Ed.
Pinnock, Rupert (Geelong), M.R.C.S. Eng. and L.S.A. Lond.
Rankin, William Bailey, L.R.C.S. Ed.
Rudall, James Thomas, F.R.C.S. Eng.
Smith, Patrick, M.B. Sydney.
Thomas, David John, M.D. St. And. et Melb. F.R.C.S. Eng., L.S.A. Lond.
Tracy, Richard Thomas, M.D. Glas. et Melb., L.R.C.S.I.
Whitcomb, Henry Moroney, M.R.C.S.
Wilkie, David Elliot, M.D. Ed. et Melb., L.R.C.S. Ed.
Wilkins, John, F.R.C.S. Eng.
VARIOLA OR VARICELLA.

There has been a controversy during the last week or two respecting the nature of the disease which, if it did not commence coincidently with the arrival of the "Avon Vale" in this port, was at least brought prominently into notice soon after the coming in of that vessel. The death of the chief mate of the "Avon Vale" from unquestionable variola in the Immigration Hospital was followed by the occurrence of some dozen cases in the neighbourhood of that institution of what were officially reported as varicella. A very natural apprehension, however, on the part of the inhabitants in that quarter of the city led to some inquiries of a non-official character, and four cases in the Immigration Hospital were pronounced to be variola, and representations were made to that effect to the Government. It would be from the purpose just now to inquire how far some of these representations were the result of an inordinate craving after notoriety by those who made them. It is not the first time that the truth has been advocated by the wrong people and with an improper motive. The representations resulted, however, in the appointment of a commission, consisting of Dr. McCrea, Dr. Motherwell, Dr. Barker, Dr. Thomas, Mr. Pugh, Mr. James, Mr. Crooke, and Mr. Stewart to investigate and report on the subject. As might have been expected, their opinion was divided, but it can hardly happen that, on a reconsideration of the cases and a recollection of what essentially constitutes variola, and the opinions that have been expressed by high authorities on the apparent pathological relationship of variola and varicella, those of this commission, whose opinion is really worth regarding, will not find occasion to qualify, if not to retract, their conclusions.
Dr. Hughes Bennett tells us that the essential unity of the two affections has been fully established, and as the proof of this very important principle rests upon the numerous and carefully-conducted experiments of Dr. John Thomson, as recorded in his "Account of the Varioloid Epidemics of Scotland," which we are told, "have never been controverted," but, indeed, greatly confirmed by recent investigations, there is something more than a colour of justification for regarding the recent cases of exanthematous disease supposed to be varicella as varioloid. For it is quite certain that the symptoms did not conform to ordinary varicella, as described in all text-books, and it is equally certain that they conformed tolerably closely to those of modified small-pox. All the reasons, both negative and positive, which have been insisted upon as against the variola hypothesis, are capable of explanation in favour of it. Varioloid disease, in greatly varied forms, has never been questioned as a pathological fact, and we are told by the latest and best standard authority on the science and practice of medicine* that "modern pathology now regards these varieties as the result of the modifying influence of vaccination." He also admits the resemblance of varicella to variola "with the modified form of which it is considered by some to be identical." But conceding the non-identity of the two, and carefully comparing all the symptoms that are understood to mark varicella in what may be regarded as its typical form, it will be found that the cases which have recently occurred in Melbourne have approached in their character much more closely to variola than varicella. It is urged, however, that similar cases occurred long before the arrival of the "Avon Vale," and indeed, that the disease has been observed but not prominently noticed for many years past in this colony. This, however, only goes to prove that we have had modified variola among us longer than was at first supposed, but it gives no warrant for denying the very obvious connexion between an undisputed example of imported variola, and the dozen other resulting examples of variola modified by circumstance. It may be a source of congratulation that the conditions are not favourable in this colony for the production of the severer forms of variola, but every addition to what is known on the subject, only goes to prove the more incontestably that the variolous poison is one whose effects vary according to the system upon which it operates.

Dr. Aitken says, "There appears to be every variety in

* Dr. Aitkin.
the nature of the modification." This seems at first to be a very wide area within which to include the different examples of the disease, but the category of departures from typical manifestations given by Dr. Aitken is so considerable, that it helps to remove much of the hesitation which might be felt in pronouncing the recent cases those of smallpox.

As a mere subject of professional controversy this will soon pass away, but inasmuch as it involves the much more important question of pathological analogies, it is to be hoped that it may be taken up at another time, when the heat and eagerness of scientific antagonism will not prevent its dispassionate consideration.

With reference to the desirability or otherwise of continuing to use the present building for the reception of such cases, the following report conveying the opinions of the Commission was furnished by Dr. M'Crea to the Chief Secretary:

"In compliance with the instructions contained in your memorandum of yesterday's date, to place myself again in communication with the gentlemen named in the margin (Dr. Barker, Mr. Crooke, Mr. James, Dr. Motherwell, Mr. Pugh, Mr. Stewart, and Dr. Thomas), with a view to a report as to the suitability of the Immigration Hospital for the treatment of the existing cases of sickness, and the propriety, or otherwise, of removing them to the Royal-park or some other fitting locality, I have the honour to report that—

"1. Dr. Thomas thinks the hospital is suitable for their treatment, and that it is not desirable to remove them.

"2. Dr. Motherwell thinks the hospital is suitable for their treatment, and that it is not desirable to remove them—it could not be done with safety.

"3. Mr. James thinks the hospital is suitable for their treatment, and that it is not necessary, either for the safety of the public or themselves, that they should be removed.

"4. Mr. Pugh thinks the hospital is suitable for their treatment, and that it is not necessary, either for the safety of the public or themselves, that they should be removed.

"5. Dr. Barker thinks the hospital is suitable for their treatment, and that it is not necessary, either for the safety of the public or themselves, that they should be removed.

"6. Mr. Stewart thinks the Immigration Hospital unsuitable for the treatment of the present cases, and that the patients should be removed, but that their removal might be hazardous to themselves.

"7. Mr. Crooke thinks the hospital is unsuitable for the treatment of the patients, and that it is desirable to remove them.

"8. My own opinion is that the Immigration Hospital is a suitable place for the treatment of these cases, and that it is wholly unnecessary for the safety of the public, and undesirable for the patients themselves, that they should be removed."

(Signed) "W. M'Crea, Chief medical officer."
Up to the present date no further cases have occurred, and the four which have more particularly formed the occasion for the late controversy are convalescent. But there can hardly be two opinions upon the question of what should be done in the event of any new cases presenting themselves.

CORRESPONDENCE.

ARSENIC IN DIPHTHERIA.

To the Editor of the Australian Medical Journal.

Sir,—You may be aware I have given a good deal of attention to the diagnosis and treatment of Diphtheria.

About eight months ago I had a troublesome tedious case of skin disease, the patient, a child, at last got well under the administration of Arsenic, in the form of Liq. Arsenicalis. About the time this child’s disease began to improve, her brother got Diphtheria, and it struck me at the time that it was rather strange that she did not get it also, as she slept with him; this made me think could the Arsenic be acting as a prophylactic, and remembering the action of Belladonna as a prophylactic in Scarlatina epidemics, I determined to try the Arsenic in the same capacity, and several cases coming on at the time of Malignant Diphtheria, I made a practice of prescribing mild doses of Fowler’s solution to the other members of the family in which Diphtheria appeared. I have the most satisfactory result to report, for not a single child took Diphtheria who had been given Arsenic as a prophylactic, although in hourly contact with the plague. I write to mention the matter to you; perhaps some of the faculty in Melbourne will give the experiment a trial, and report results.

I am, dear Sir, yours truly.

Resident Physician and Surgeon, Queenscliff.

ALFRED SHAW.

LOCAL TOPICS.

The following additions have been made to the Register by the Medical Board since our last issue:—James Jamieson, Warrnambool, M.D. 1862, Ch. M. 1863, Glas. Benjamin Clay Hutchinson, Chiltern, M.D. Edin., 1855. Thomas Elmes, St. Kilda, M.R.C.S. Eng., 1863, L.K. and Q.C.P.I. 1864. O. V. Lawrence, Melbourne Hospital, M.B. Melb. 1868.

Names of deceased practitioners erased.—Craig, Wm.; Schmidt, R. W.; White, T. E.

Names erased under provisions of Sec. 7.—Archambault, L.; Ashton, J. H.; Callan, J. B.; Casperson, S. E.; Chambres, C.; Cooper, Chas.; Creed, J. M.; Cribb, W.; Doolittle, F. W.; Eaton, D. W.; Edmonston, J.; Euston, Alex.; Florance, W.; Foster, Thos.; Galloway, A.; Gordon, P.;

The following vaccinators have been appointed:—J. D. Tweedale, M.R.C.S., for the district of Ballan, vice Mr. Jopling, resigned; James Joseph Goldie, L.R.C.S.E., for the Sunbury Industrial Schools; William Barker, M.R.C.S., for the district of Wahgunyah; Thomas Lang, L.R.C.S., Ed., for the district of Donnybrook, Wallan Wallan, and Mickleham; Edwin Stanford Maxwell, M.R.C.S., for the districts of Seymour and Tallarook.

Mr. Paley, Surgeon-Superintendent of the Yarra Bend Lunatic Asylum, has been appointed examiner to the University, in mental pathology, therapeutics and mental hygiene, of students of medicine.

Dr. O. V. Lawrence, who, prior to his obtaining the M.B. degree of the Melbourne University, was temporarily appointed to perform the duties of resident physician of the Melbourne Hospital, has been permanently elected to that office.

The Attorney-General has just very properly decided that a magistrate who gives an order for the medical examination of a lunatic, must either certify for the fee, or pay it out of his own pocket.

The authorities of the Melbourne Hospital and of the Lying-in Hospital were fined on the 29th ultimo for “allowing the cesspools attached to these institutions to overflow.” The penalty inflicted was five shillings in each instance, with two guineas and one guinea respectively expenses.

Mr. D. B. Reid, Resident Surgeon of the Geelong Hospital, was on the 31st ult. presented with a silver cup containing 525 sovereigns, to reimburse him in the expenses he incurred in connection with the recent trial of Barnett v. Reid. The ladies of Geelong, it is said, are raising a subscription for Mrs. Barnett.

The committee of the Prince Alfred Hospital has decided upon the order of merit of the designs for the building, which had been previously selected from fourteen competitive designs. The following is the order in which they have been finally placed:—No. 1, “Utilitas,” Mr. Chas. Webb; No. 2, “Florence Nightingale,” Messrs. Smith and Watts; No. 3, “Fortuna Cetera Mando,” Messrs. Robertson and Climie. The estimated cost of the designs is respectively £36,664 15s., £38,604, and £41,151. The selection was delayed in consequence of the committee taking the opinion of the committee of architects as to the relative excellence of the designs; and some controversy has arisen in consequence of what is alleged to be unfair dealing as towards Messrs. Smith and Watts, who furnished design No. 2. From the description appended to the prize-plan the following particulars are extracted:—

“The whole of the buildings (which are to be Elizabethan in style) are intended to be constructed of brickwork, faced externally with dark bricks, tuck-pointed and relieved with white and other coloured bricks, and some of the ornamental work will be in Portland cement. This construction, it is presumed by the designer, will produce the most cheerful and effective exterior, combined with the most economical construction. The pavilion walls are to be hollow. The walls internally and the ceilings to be finished in Keene’s cement, or other white and non-absorbent material. All the staircases and landings are to be of stone. The total estimated cost of the whole buildings is £36,664 15s., of which the administration block is computed at £6,643 14s.; the four pavilions, £26,863; the operating room, £316; kitchen and laundry offices, £2,470 8s.; dead-house, £266 13s.; and the lodge, £105. To obtain the required accommodation for about 100 patients the designer suggests that two of the pavilions should be erected, part of the ground floor of one of them to be divided off for the outpatients' department; that the centre only of the administrative block be erected, the wings being left for future extension, as the centre will doubtless
give efficient accommodation in the first instance. A portion of the out-
ofices can also in like manner be dispensed with. The several buildings
are designed with special regard to ventilation, light, and cheerfulness,
combined with such direct intercommunication as to render the general
administration of hospital affairs as easy as possible.”

The Kaikoura, which arrived with the Panama mails in Sydney harbour
on the 28th ult., had smallpox on board, and was placed in quarantine.

A new medical society has been formed with the title of “The Victorian
Medical Association. The first meeting was held at the Port Phillip Club
Hotel, on the 8th instant. Mr. Cornelius Stewart, the president, delivered
a remarkable address, which is at least amusing. The office-bearers of
the new society are as follows:—President, Mr. Stewart; vice-presidents, Mr.
Crooke, and Dr. McCarthy; honorary secretary and treasurer, Mr. Lloyd;
committee—Dr. Berncastle, Mr. Bragge, Mr. Curtis, Mr. Figg, Mr. Iffla, Dr.
Murray, Dr. Reeves, and Mr. Thomson. A Medical Gazette is part of this
organization.

The following suggestion as an antidote for scorpion stings and tarantula
bites, by the correspondent of a Sydney newspaper, is worthy of the dark ages:
—“Take alive the largest of the above-named insects, and place it in a small
vial filled with brandy or gin of the best quality, cork well up, seal the top,
and let it die. During its agony it emits something which, mixing with the
spirit, becomes the antidote. In cases of stings or bites it is advisable to
give the person affected a strong dose of castor oil, or some opening medi-
cine which will act quickly, as well as rubbing the place stung, well with
the liquid frequently.”

The Herald, of the 13th, has the following:—“At the Emerald-hill Court
this morning, a person named George Coltren was summoned by the police
for neglecting to have his child vaccinated. In defence the defendant pro-
duced a ‘certificate’ from a Mrs. Crisp, residing at South Yarra, and follow-
ing the calling of a midwife, to the effect that Mr. Coltren’s child had been
inoculated by her. Coltren stated that Mrs. Crisp had informed him that
she was in the habit of obtaining matter for vaccinating from Mr. Ford, of
Melbourne, who approved of her performing the operation. The defendant
was allowed a week to have his child vaccinated by a medical man, and it
was understood that proceedings would be instituted against Mrs. Crisp
under the Medical Practitioners Statute.”

Recent news from Sydney conveys the information that the mate of the
bushranger Thunderbolt is a medical man of the name of Pearson.

BIRTH.

HADDEN.—On the 9th inst., at 10 Napier-street, Fitzroy, the wife of J. W. Haddon, M.D.,
of a son.

NOTICES TO CORRESPONDENTS.

Communications have been received from the following gentlemen:—
Dr. Von Mueller, Dr. Cosby Morgan, Mr. Pincott, Mr. T. R. Wilson, Dr.
Alfred Shaw.

Dr. Alfred Shaw: Half drachm doses at short intervals.

The following publications have been received: The “Medical Press and
Circular,” for October 7, 14, 21, 28; The “St. Louis Medical Reporter,” for
October 1; Triibner’s “American and Oriental Literary Record,” for Sep-
tember; The “Geelong Advertiser,” of various dates.