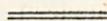


effect, that no such adhesions as those contemplated in the first part of the above paragraph existed in this case. How those which I have italicized could be ascertained before the abdomen is opened and the cyst tapped, does not appear, yet are they, judging from analogy and the anatomy of the parts, very likely to occur; and, as will be seen from the history prefixed to these remarks, they were the means of defeating me at the very moment in which success seemed certain. Had I not had the good fortune of having a large veterinary clamp by me at the time, I would have been obliged, *nolens volens*, to return the empty bag into the cavity of the abdomen; as it was, I acted on the promptings of the moment, and on the advice of my colleagues; and I should think that the rule of surgery (see South's *Chelius*, vol. ii. pp. 40, 41, etc.) which prescribes the removal of an irreducible mass of omentum, would also apply in cases similar to that so feebly described above. Upon this point, however, I am unable, for the reasons already given, to offer any decided opinion; and were this kind of interference again required at my hands, I should naturally defer in such a contingency to the advice of those who have more knowledge of these cases than I or my military brethren can pretend to. This I would fain solicit through the medium of this communication; and with regard to further experience in this province on the subject generally, I have heard of four other instances in which an operation was performed for the removal of a diseased ovary. In one of these, a European, a large collection of hydatids of the womb was removed, and the patient succumbed to exhaustion some days subsequently. In the three others, who were natives, incurable disease of the liver, or extent of adhesions, precluded further proceedings in two, and both these women recovered. In the third, a dropsical ovary was successfully removed; and this constitutes the sum of my experience of ovariectomy on either side of the Indus.



ARTICLE VIII.—*Glimpses at the Health Resorts of the Bay of Naples in Ancient and Modern Times.* By JOHN MACPHERSON, M.D., Inspector-General of Hospitals (retired).

(Continued from page 819.)

WE may next proceed to *Baiæ* proper, and speak a little more specially of its climate and of its remains. *Baiæ* can never have been a very bracing spot, especially as hills shut out the influence of the *Favonius* or west wind, which the open shores of the Mediterranean enjoyed. *Baiæ* was undoubtedly occasionally unhealthy in the days of Cicero; for in a letter to *Dolabella*—which, by the way, showed that the Romans visited it as early in the year as April—he congratulates him on *Baiæ* having suddenly become healthy for his sake. Still it is impossible that the place should

have been very insalubrious, and yet have remained for ages so popular. It is since the formation of Monte Nuovo that Baiæ has got its evil reputation. An Italian Jesuit, Camillus Eucharius de Quintas, who wrote an elaborate poem on the island of Ischia in Latin hexameters about 150 years ago, considers Cumæ and L. Acherusia unhealthy, and insists on the deadliness of the shores of Baiæ, saying that they must not be visited until the sun is well up in the heavens. Avernus, he said, was healthy.

The mineral waters at Baiæ were very numerous. From Tripergula to a mineral water in Misenum, Alcadinus enumerated no fewer than twenty-two springs. These included one of petroleum, and the baths of St Lucia, endowed with very wonderful properties, equal even to giving sight to the blind, and said to be so frequented by strangers, that the Neapolitans could find no room for themselves at them.

Bartolo, in 1688, strange to say, found nearly as many springs to describe as Alcadinus, some of them restored by the munificence of Charles II. of Naples. Even in the "Guide to Pozzuoli and its Neighbourhood," published in 1768, ten baths are spoken of as being in existence. Of all these baths, only one, or perhaps, if we count the bath of Tritoli, two, are now in occasional use. The chief one is the Sudatorium of Tritoli, which in modern times commonly passes by the name of the Stufe di Nerone. The distich of Martial—

"Quid Nerone pejus?
Quid thermis melius Neronianis?"—

is usually applied to this place, but was really meant to apply to the magnificent thermæ which he built in Rome. I see no evidence of his having built any baths here. He did indeed inaugurate the mad scheme, of making all the hot springs along the coast from Avernus to Misenum discharge themselves into one huge covered piscina, extending from the one place to the other—a scheme, the execution of which was commenced, but was never carried out. The stufe of Tritoli have been considered to be the *myrteta* so often spoken of by authors. We have but a very slight description of the *myrteta* in Celsus, who uses these words, "Where hot vapour issuing from the soil is enclosed in an edifice, as in the *myrteta* above Baiæ." Possibly the situation of these stufe may in some degree correspond with the description "above Baiæ," but I should rather have expected to find them in the hills behind and to the west of Baiæ. There is no trace of such an edifice as is alluded to by Celsus, or as would have suited the requirements of the luxurious Romans. The long passages and heated chambers, and rude arrangements of these stufe, are in part threaded by most strangers. All its windings were made out, and a plan of them drawn by Signor Bulifon about 1700, not without *incredibili sudori*. They are most powerful sudorifics, and are used to a considerable extent by the people of the country. No longer than a hundred years ago, about

900 patients used to be annually sent to them from the hospitals of Naples in the month of June.

Of remains of establishments along the coast, the most extensive and best preserved, the *piscina mirabilis* at Baoli, appears not to have been a swimming-bath, but a reservoir of water for the fleet. The ruined buildings at Baiæ, now passing by the names of the temples of Venus, of Mercury, and Diana, were evidently baths, like the remains of similar constructions at Tritoli below the stufe. About all these buildings there are remains of water channels—indeed, springs were to be found in most of them a hundred years ago.

The waters of Baiæ were often spoken of by the ancients as sulphurous, and no doubt some of them were so; but they were essentially like those of Puteoli—warm waters containing common salt and a little soda. As already said, most of them have been lost, but they could no doubt be found again, if they were wanted—of which being the case there seems to be no probability. The only traces of the Baiæ springs now commonly known, are the hot waters in the Tritoli stufe above mentioned, in which it is usual to boil eggs for the delectation of travellers, and the lukewarm waters in what is commonly called the Sibyl's Cave, to the south of Avernus. There is also a mineral water called the Capona, in a so-called temple on the east side of Avernus, and no doubt near it might be re-discovered the old chalybeate spring, or Balneum Ferri. Even in the time of the early emperors all the wood about Avernus had been cut down; it had lost most of its traditional gloom, and the neighbourhood had become healthy; and it has not in modern days had the evil reputation for fever, which attaches to Baiæ.

Thus far we have had to treat chiefly of waters historically interesting, but of little practical value at present, as they and their uses have been forgotten. Henceforth, commencing with Pozzuoli, we have to do with waters, some of which are used very extensively; but before reaching that place, we must pass the site and the meagre ruins of the villa of Cicero and its Academia, with portico and grove. It is only their association with the past that gives them an interest to us. The painstaking but somewhat dull poet, though valuable for his account of the topography of the neighbourhood, Silius Italicus, lived in Cicero's villa; and according, at least, to one account, the remains of the Emperor Hadrian found their first resting-place in its grounds, and a temple was built over them. But the Balneum Prætorii of Cicero is interesting to us, because it sprang up in his garden not long after his death. It seems, like all the buildings of the place, to have completely disappeared. It was considered a specific for weak eyes, and its virtues have been transferred to one of the springs of the temple of Serapis. It is curious to observe how very highly Pliny thought of some not very brilliant verses by a freedman of Cicero on this spring, the two last lines of which say, that Cicero had so many

readers, that it was well there should be fresh waters for their eyes.

“ Ut quoniam totum legitur sine fine per orbem,
Sint plures oculis quæ medeantur aquæ.”

Coming to the next group of waters near Naples, we reach Pozzuoli, formerly Puteoli, doubtless so called for its numerous wells. They were known nearly as early as those of Baia; and in the old world the mineral waters and sea-bathing of Puteoli enjoyed a high repute. Of the fortunes of Puteoli it is not necessary to say much. From being a great city and a centre of commerce, it has dwindled down into a third or fourth rate town. It was nearly deserted at the time of the formation of Monte Nuovo, when most of its buildings were thrown down, but it never fell into the utter decay of Baia, and not being shut in from the sea breeze, it has never been so unhealthy as the former place.

The only waters of Puteoli proper, in these days, are at its west end, the baths of the temple of Serapis. There are three springs, but the one that is best known has long passed by the name of Aqua del Cantarello, or of the Tre Colonne, the pillars now of such geological fame, as bearing witness to the successive depressions and elevations of the coast. The Aqua Cantarello in former days was covered by the sea in stormy weather. The springs seem to have been upheaved during the changes of 1538. They were rediscovered in 1750, and there is now a considerable bathing establishment there, raised on the remains of the ancient thermæ. The baths are not well kept. There are thirty separate baths, and one piscina. The waters are slightly thermal, limpid, and inodorous; they contain a little soda and common salt, and are not powerful. They are used only for baths, and are found to be useful in gout and rheumatism. One of the springs, dei Lipposi, like that which sprang up in the grounds of Cicero's villa, has local fame in weak eyes.

Just above the town of Pozzuoli, it was intended to have a new establishment in the beautiful grounds of the Villa Cardito, and to open up some of the springs, which were probably those of the old Bagni Orthodontici, which used to be considered a sovereign remedy in consumption. In former days vapours of a deadly nature were said to escape from the rocks, and required caution on the part of visitors. It was also proposed to restore a large piscina, which has been preserved nearly as well as the vast one at Baoli. Owing, however, to the season of my last visit to Pozzuoli and other causes, I could obtain no information as to the progress of the undertaking. No one in Naples took any interest in it.

Before passing further along the coast to Bagnoli, it is desirable to visit the heights above Pozzuoli, the old Phlegrean fields, or Forum Vulcani, which is sterile and verdureless, as when it was described in the verse of Petronius Arbiter. It is unnecessary here to describe so well known a scene, or the decay of its manufacture of sulphur and of alum; but one or two things must be said of

its healing virtues. Ever since the days of Galen it has enjoyed a reputation of great salubrity owing to its sulphur vapour *fumaroli*. Many a story has been told of patients trying other climates and change of air in vain, and being at last cured of consumption by a residence here. It is said that glandered horses are sometimes sent with advantage to breathe the air of the Solfatara.

There is a powerful thermal spring in the Solfatara, containing sulphate of iron and sulphuric acid, probably of much the same constitution as the waters of the Pisciarelli, which I shall presently mention. This water is described in the verse of Alcadinus. He says, if your nose only does not object to the smell, that it has marvellous virtues, curing sterility, and also clearing the eyes (in no pleasant fashion) by causing vomiting. There is a small bath-house in the Solfatara; but the waters have been chiefly used of late years as local applications in the hospitals of Naples, especially in ulcers and fistula. There is no doubt that the waters are strongly acid and styptic. If we cross the Solfatara, and descend its slope towards Lake Agnano, the Montes Leucogæi, or white earth mountains of Pliny, we come to the more important waters of Pisciarelli, or the Balneum Bullæ, so called from its high temperature and the sound of boiling. It is probable that the water contains as much as 1 grain of sulphate of iron, $\frac{1}{2}$ of alum, and $\frac{1}{2}$ of sulphuric acid in the oz. It has a temperature of about 156° . I did not actually visit the spot; but there is said to be a small stufa or sudatorium here, and the spring is in a small cottage, which is provided with some rough baths.

Pliny told us that these waters were good for the eyes and for wounds. To this day they are chiefly employed as external applications in eruptions and sores. However, they may also be taken internally with care, in quantities up to five or six ounces, when they are found to be good astringents in chronic diarrhœa and in hæmorrhages. Both this and the Solfatara water have some traces of arsenic, and are of quite a different character from the ordinary mineral waters of the district.

If we take the next division, or the district between Pozzuoli and Naples, we shall find that this region continues to abound in mineral waters. It must have been thinking of them, rather than of the not very important waters of Naples proper, that Strabo said, the waters of Naples were in no way inferior to those of Baiæ, except in number. The baths he considered to be equally well furnished.

At the present day, there are no fewer than five bath establishments along the road from Pozzuoli to Bagnoli. Leaving Pozzuoli for Naples, we first pass, on the left hand, the baths of Subveni Homini, "Succour man," called also Del Ponte. They contain less carbonate of soda and more of the sulphates, than the waters of Bagnoli. The temperature of the waters varies, but may be considered to be about 104° . In modern times, the waters are chiefly used in nervous and paralytic affections and in dyspepsia. If the

lines of Alcadinus are true, every gouty man ought to make a pilgrimage hither.

“Hic etiam deponit onus longæva podagra,
Hic datur articulis induciata quies.”

Close by, and on the sea-shore, but now entirely forgotten, were the sands of St Anastasia, used for purposes of arenation, *i.e.*, of burying the body in heated sand. If a hole was scooped in the sand, hot water flowed in. As Alcadinus expressed it—

“Res miranda quidem, quicunque cavabit arenam,
In medio fossæ fervida manat aqua.”

There is no trace of this old station for arenation, a process which we shall hear of again. The two next bathing establishments along the road, doubtless represent the old *Bagni de Calatura* and *Petræ*, the first in old days a cure for cough and phthisis, the latter for stone. The use of the waters on this coast must be reviving, if one may judge from the number of these establishments, which were all newly painted, and looked attractive, though they were closed at the time of my visit.

We come next to the very considerable bathing establishment of *Bagnoli*—corresponding to the old *Balneum Plagæ*, so called as being close to the sea-shore, for the two old baths not very far off, between it and the roots of the mountain of *Pausilippo*, the *Balneum Juncaræ* and the *Fons Cryptæ*, appear to be no longer used. The waters of *Bagnoli*, Alcadinus tells us, were the most popular of all with the people of Naples, and none are at the present day situated so conveniently for them. There are three springs—the temperature of the warmest about 105°. Their constituents seem to be nearly the same as those of the temple of *Serapis*, than which they are probably a little stronger. There is a very good establishment, with thirty bathing cabinets painted in Pompeian fashion, and with two *piscinæ*, one for sitting, the other for swimming in. There are also chambers where pulverized water is inhaled. The waters are chiefly employed for bathing; but as they contain carbonic acid and soda and common salt, they may also be drunk, and are useful in vesical and uterine as well as in dyspeptic affections. The cure may be carried on at any season of the year. The views across the bay to *Baia* and *Miseno* and to the neighbouring island of *Nisida* are charming.

On the way from *Bagnoli* to Naples it is usual to turn off by a road on the left, and visit the *stufas* of *San Germano* and the *Grotto del Cane*. One comes first on the excavations in the tuffa known as the *Sudatorium Agnianum* or of *San Germano*. The latter name introduces us to a curious early legend as related by Gregory the Great in one of his dialogues, about the end of the sixth century. He says, he was told, when a young man, that Germanus, bishop of Capua, was sent to these thermæ by his physicians. It appears that Germanus, to his great astonishment and dismay,

recognised among the servants of the establishment Paschasius, a Roman deacon, who had been dead for some years. On addressing him, Paschasius told him that he had never acknowledged Pope Symmachus, but having voted for his rival Laurentius, he still clung to him in affection, although overpowered by the general voice in favour of Symmachus; that for this venial offence (although he had been a man of such sanctity that a demoniac had been cured by merely touching his dalmatic, placed on his bier), he had been sent to purgatory, and was serving his time in the labyrinths of Agniano. He begged for the prayers of Bishop Germanus, and not in vain—for when the bishop came back next season, Paschasius was there no longer. These remarkable events are thus summarized by our poet:—

“ Illâ in Germanus Capuæ caput æde repertum,
Ad Sacra Pascasi pascua te retulit.”

These stufe must have been in a very different condition then, from their present one. Although they can, like the stufe of Tritoli, afford any amount of sudation—the heated air reaching the temperature of 147° and more—the arrangements are rough, and only suited for the poorer classes of patients. The Romans seem to have had at this spot thermæ on a large scale. They were said to have been built by Lucullus, and their extensive remains were to be seen in Hamilton's day. I have nothing new to say of these stufe, or of the neighbouring Grotto del Cane. It has been visited by every traveller, and experimented on by every philosopher who has got as far as Naples. I did not witness the usual experiment of first asphyxiating a dog by putting him into a hole, the bottom of which is filled with carbonic acid, and then restoring him. Natural escapes of gas are not uncommon, and here, as at other places, I was satisfied with perceiving the feeling of warmth which the gas communicated to my legs, and the strong, pricking sensation in the mouth and nostrils on dipping my head for a second. As regards the cruelty of the practice, the dog usually operated on trotted with us to the grotto quite readily, and seemed rather disappointed than otherwise, that we made no use of his services. A few yards from the Grotto del Cane is another escape of carbonic acid, accompanied by a certain amount of ammonia. It can scarcely be called an issue of ammoniacal gas, as it is described by some. I may observe that in the stufe close by, as well as in some of the baths in Ischia, there was a distinct deposit on the walls of sal ammoniac. The stufe and the grotto are close to the shores of what once was the Lake Agnano, which used to be considered bottomless, and whose waters, apparently containing some bubbles of gas, were supposed to have special virtue in restoring the asphyxiated dogs. It has been recently drained, and the land reclaimed is being gradually brought under cultivation—a measure which is expected to remove the character

of the neighbourhood for insalubrity. As there has been much difference about the origin of the meaning of the word Agnano, or Aniano, I shall say a little about it.

The Lake Agnano was not described by the ancients at all. Gregory the Great first mentioned the *Thermæ Angulanæ*. This has unfortunately been commonly read *Angulares*, which has been converted into *Angularia*, and has led to the derivation of the name from the number of snakes or small eels supposed to be present in the waters, or from something about the configuration of the lake being angular. However, it is a very easy transition from the old name *Angulanus* to *Agnanus*. I cannot say what the word *Angulanus* means; there were a set of people in the centre of Italy called *Angulani*; and what is very curious, at another Agnano, close to the acidulous springs of Asciano near Pisa, there are emanations strong enough to kill small animals, and with a little lake beside it.

Those who are curious, may drive past the western side of the dried lake, cross the small stream running from the hot springs of *Pisciarelli*, and ascend the opposite hill of *Astroni*. Here is the strange and picturesque sight of an extinct crater, now beautifully wooded, and walled in as a game preserve, all round a circumference of about six miles. In the bottom of the crater there are some small wooded elevations, and at their base two small lakes, near the first of which there were a thermal spring and a thermal establishment, which fell into decay nearly two hundred years ago, and of which no trace can now be found.

Before quitting this side of the Bay of Naples, I may mention that some of our ships of war were, a few years ago, anchored for several months in the Bay of *Pozzuoli*, and that the crews remained healthy, although some of the officers suffered from fever, after being allowed to go on shore and shoot in the neighbourhood of *Baia*.

(*To be continued.*)

ARTICLE IX.—*Report of and Observations upon a Case of Puerperal Tetanus.* By ANGUS MACDONALD, F.R.S.E., Lecturer on Midwifery and Diseases of Women and Children.

(*Read before the Obstetrical Society of Edinburgh, 14th April.*)

ABOUT 10 A.M. on the morning of the 9th of March 1875, I was hurriedly summoned by Mr Bentley, one of my pupils at the New Town Dispensary, to see a patient to whom he had been that morning called, and who, he stated in the note, seemed to suffer from puerperal convulsions. The patient's name was Mrs Louttet, her age 24, and her residence Ironside Close, 85 Abbeyhill.

She had been married for three years, and had had two children. The eldest, a healthy girl, was born about one year after marriage,