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Some remarks on the Professional Experience of a General Medical Practitioner in Pretoria, Transvaal.

Owing to the vast extent of South Africa, with its varying altitudes from sea-level to nearly 6000 feet, it is evident that the climate of the different districts or counties in each Colony will differ greatly, e.g. the temperate Coast-zone of the Cape Pinsula in with its winter rain and dry or showery summers, South-east hurricanes or storms and with very rare frosts, is followed, as one goes North by the railway towards Pretoria, by a succession of rises to Worcester at the Southern foot of the Hex-river Mountains with an altitude of 794 feet, then a climb over these Mountains to Constable at the Northern foot with 3200 feet, with a gentle fall through the dry, bleak Gauph to 1820 feet near Fraserburg, 300 miles from Cape Town, then rising again through the hot, arid Karroo, where no grass is seen, but only scanty, short scrub-bush grows, to Beaufort-West, 2792 feet, and then within the next 100 miles rising to 4175 feet at Victoria Road Station, 419 miles from Cape Town by rail. Next passing over hilly, undulating Karroo to De AAR Junction 4180 feet, and 500 Miles from Cape Town, where the Pretoria line for a time runs due Eastward, and climbs to 4884 feet at Naauwpoort Junction, 565 miles from Cape Town, and lying at the foot of Naauwpoort Mountains in which a train was snowed up a few months ago.

In this Middle Zone the rains are erratic, and often in forms of deluging thunder-storms, while summer droughts are ofter of five or more months duration, with the earth and air hot and dry to excess during the day, the nights, however are cool, and are the redeeming feature to man and beast.

- The cold -

The cold of winter here is often severe and sudden, a clear sky and warm day being followed soon after sun-set by a hard frost, when the thermometer may register 20 degrees Fahrenheit during the night. I have frequently seen it do so in Colesberg, 4500 feet, i.e. nearly the same altitude as Pretoria, but lying halfway between the Naauwpoort Hills and the Oragge River. The cold is accompanied with the formation during a single night of 1, 2, or more inches of ice, which melts in a few hours again in a warm and genial sunshine.

From Naauwpoort there is undulating, hilly country, dropping to 3988 at Orange river Bridge, and rising in undulating plateaux through the O. R. Colony to 4937 feet at Springfontein, 662 miles from Cape Town, to 4517 feet at Bloemfontein, 750 miles distance; to 4638 feet at Smaldeel, to 4725 at Winburg, to the highest Station in this Colony - Heilbron, 5158 feet, distant 974 miles. These parts have all the same tendency to droughts, thunder-storms, hot-days, cool nights, severe cold during winter nights, and pure, dry clear atmosphere, but after Bloemfontein is passed more grass andless of stumpy bush is seen, and the rains are rather more to be depended upon, while the cold of winter becomes less severe as every degree of Latitude is passed.

From Heilbron the Watershed of the Vaal River drops to 4692 feet at Vaal River Bridge Station, 982½ miles from Cape Town, to rise steadily to 5478 at Elandsfontein only 22 miles further on, and to 5689 feet at the Park Station of Johannesburg, only 11 eleven miles further, but seeing that Park Station lies at the lowest part of the town, Johannesburg itself may be called 5800 feet, and is 1012½ miles from Cape Town by this route.

I am here giving the Official Altitudes and distances taken from the recent Cape Government Railway tables, but may remark that there are discrepancies between them and the Natal

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Natal and Z.A.S.M. Engineers as to the exact Altitude of the latter places, some of them placing Elandsfontein Station, the Junction of the Cape, Natal and Delagoa lines, as the highest station in the whole of the South African Railways, and Park Station in Johannesburg 600 feet lower.

From Elandsfontein to Pretoria Station, a distance of 36 miles, the line falls 1000 feet to 4471 feet, and as the Station is the highest point of the City the Altitude of the centre of Pretoria may be put down at 4370 feet, and the distance 1040½ miles from Cape Town by rail.

As one descends from Elandsfontein towards the basins of the Krocodile, Aapies and Pienaars Rivers, all in the vicinity of Pretoria, with the Magaliesberg Range cutting diagonally across them, more tropical condition is at once met with, and the farms lying close behind this range are practically free from frost so that the banana, date and coffee will grow there, although not yet cultivated to any extent.

In Pretoria it may or may not freeze during the winter nights, but during the day time I have never known it to do so, so that although Johannesburg and Pretoria are scarcely 30 miles apart in a direct line their climates differ considerably the former being cooler in summer, and much colder in winter, when it freezes sharply at night.

If the railway past Pretoria towards Delagoa Bay be followed, the highlands of Middelburg are waving in tropical grass during summer, while the cold of the winter nights is as severe as at Colesberg or Bloemfontein, until the Elandsriver Valley be reached, beyond Machadodorp, when a tropical climate extending into Portuguese territory is met with.

In the Zoutpansberg and part of the Waterberg Districts in the Transvaal, the climate is practically tropical, frost is unknown, except in the highest mountains, and coffee grows

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luxuriently .

No definite or Official Readings have been kept throughout the Country of the Barometrical and Thermometrical changes, and those that were kept in Pretoria have been mislaid since the the Occupation, but from the glimpse sketched thus far it at once becomes evident that all possibilities of climatic changes and influences exist, so I will rather confine my remarks to the experiences of Medical Practise in Pretoria, where I have practised for the last 14 years.

The streets of Pretoria are wide and all laid out at right angles, the freehold plots or Erven are large - 112 X 220 feet- and the town lies against a strong slope from South to North, and a gentler slope from its centre towards the East and West, so that there is every natural facility for drainage, the soil in the higher parts being red earth and gravel mixed, and black loam in the lower parts of the town.

The water supply comes from the Springs, which form the eyes of the Aapies river, which rise 2½ miles to the South of Pretoria, and about 200 feet above the altitude of the centre of the Town, the water being led down in iron pipes, so that there is a good natural pressure, no reservoir nor filters being used, the clear, hard water with lime and magnesia in solution rising direct from the Springs into the pipes, and is organically pure, as can be seen from an Analysis on the next page.

The origin of the springs is in the caverous and limestone formation, which runs for many miles across the Eastern and South-eastern districts of Pretoria towards Mooiriver and Potchefstroom, and rise into a range of Hills which enclose Pretoria on the West and South and partly on the East, hence the water is very hard ~~and~~ from the lime and magnesia salts in solution and readily clogs boilers, kettles, &c.,

Part of the water of the Springs run down the river course

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see p 6

Results of Analysis of Water taken from the taps in Pretoria 4th December 1897, expressed in millegrams per litre.

Total solid residue	
(a). dried at 110 C.	202.0
(b). calcined	162.0
Lime and Magnesia	74.5
Ferric oxide	trace
Chlorine	7.0
Total Hardness (degrees Clark)	8.5

From results of my analysis I come to the following conclusions :

The water is of unusual organic and inorganic purity and fulfils all requirements of an excellent, palatable and healthy drinking water. According to their chemical composition I classify these samples as "deep well water from a magnesian - limestone strata". The total absence of every kind of suspended matter in these samples, the extraordinarily small amount of organic matter and of developable Micro-organisms, show, that these waters have undergone a perfect natural filtration and also that no contamination in the pipes has taken place.

Yours faithfully,

(sgd). Dr. J. Loevy,

Analytical Chemist.

and a part not led in pipes runs in open or closed furrows along the sides of the streets into the town, and was formerly used for irrigating the gardens. It can be used for flushing the drains in the future, but up to the present no attempt at drains of any kind has been made, the flood rain water rushing along the streets or into the inadequate water-furrows mentioned, while the bath and kitchen water is spread into gardens, or led into closed furrows to go where it pleases, most of it oozing into the soil around or running into the little Aapies river.

The Sanitary arrangements are therefore crude, there are no water closets, the ordinary bucket system being used, the buckets being removed on an average three times a week, and tarred before being replaced in closets. In a few Government Buildings water-closets are used and the sunk pits into which these pipes are led is pumped out at night.

The streets are repaired with loose gravel and shortly before the war some were for the first time macadamised, but in general they are of such a soft nature that the traffic leaves their surfaces in powdered dust for the wind to blow about or to become mud after every rain, and up to recent years the grass grew in most of the streets during the summer.

As before mentioned the cavernous lime-stone from which the springs rise, passes immediately above the town, and the hills formed by it enclose more than the half of Pretoria as in a basin, with the Aapies river running between the hills and the town. Added to this the irrigation water runs in the furrows while the soil is gravelly earth, and naturally a condition is produced which allows of a good deal of oozing and percolation, which in turn raises the sub-soil water all through the town to within two to four feet of the surface, hence if a hole of 3 to 4 feet deep is dug a well of surface

water is produced, so that nearly every telephone and telegraph pole was planted in water in the sloping streets of Pretoria. In my estimation this has much to do with the oppressive and relaxed feeling during the heat of summer as we will feel later on.

The climate of Pretoria is subtropical, the Spring is mild and dry, and especially enjoyable, but with a tendancy to a great increase of heat between September and October, and if the early Spring showers, mostly accompanied by vivid lightning and thunder, do not fall frequently, a feeling of heat- lassitude is engendered, which is more relaxing and depressing than the later and greater heat of summer, when the rains are more frequent, thus cooling the earth and air.

During Spring sudden attacks of acute catarrhs and "influenza"-colds are specially common, much more so than would be expected from the general mildness of the climate. Laryngeal Catarrhs with croupy coughs are very frequent among the juveniles with very troublesome and incessant barking and crowing coughs, which the dry thin air, speedy radiation, and sudden drops of temperature assisted by the fine particals of dust, with which the air becomes laden on windy days, all help to keep up, sometimes for weeks, and for which only local medication has any effect. Still it may be said that with the exception of an occasional windy and very dusty day with a sudden fall of temperature in consequence of the wind, the weather and climate in spring is ideal.

As the hot weather approaches between September and November acute diarrhoeal and dysenteric- diarrhoeal complaints are also very common, sometimes so rife as to assume epidemic forms, and although locally associated with eating green fruit it is in reality climatic.

Vegetation under the circumstances mentioned during summer

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tends to become rank and luxurious in the town, and where opportunity offers decomposition of vegetable and animal matters occur very rapidly, hence mildew, mould and decay in general ~~is~~ are very common, and ought to have a considerable influence on the health and diseases of human beings and animals.

In passing, it may be stated that Irene only 10 miles off is much cooler, or rather more bearable in summer ~~/n/~~ than Pretoria, the air becoming cool and pleasant as soon as the setting of the sun allows the surface of the earth to cool. Its Altitude is not quite 400 feet higher than Pretoria, but its sub-soil water lies deep, to which, more than to the few hundred feet of Altitude, I ascribe the noticeable difference.

In Johannesburg water is known to freeze indoors during some winter nights, while in Pretoria the minimum temperature at night, taken by me during the coldest two months of one year, was only 30 to 36 degrees Fahrenheit, only reaching 30 degrees after a windy day.

During the winter months it rarely rains in Pretoria, and hence the air becomes very dry and fairly bracing. The winter is ideal except on the occasional windy days, when the dust is very irritating and the sudden fall of temperature then becomes very trying, hence the prevalance of the irritating coughs before mentioned.

It would be difficult to say when any particular season begins or ends; we can, more correctly be said to have a long, hot, and a shorter cool season.

I believe that in the near future the Town Council, now properly constituted for the first time, with power to levy rates, by hardening the streets and roads and draining the streets and the town generally, can greatly improve the climate by removing the dust and much of the sub-surface water

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which now makes the heat so steamy and unbearable, and which now produces an exodus to the seaside of all able to get away during the summer.

In considering the ailments met with in ordinary practice, there is no special disease which can be said to belong to Pretoria, but the most noticeable divergence from the normal routine was taught me in Glasgow University is among pregnant and puerperal women. It is no rarity to meet with unmarried young women say between 18 and 26 years of age, suffering from varicose conditions of the legs, in some cases of one or two large veins, but more generally from diffuse varicose condition of many small veins, and with this tendency before marriage it naturally follows that there is a greater liability to troublesome varicosity during pregancy, and also a pronounced tendency towards constipation

Not only the coats of the blood-vessels, but the Uterine walls, and the abdominal muscles all shew a want of muscular tone, and it is quite a common condition for a lady in her first pregancy to have a pendulous abdomen with the greatest prominence very little higher than the umbilicus, and Os tilted up so high as to be reached only with difficulty; this latter condition often exists during two last months of pregnancy, causing the infantile head to settle down firmly on and into the anterior half of the lower uterine segment which it gradually stretches and bulges more or less and in some cases I have felt the anterior segment just above the Os to be quite thin and dilated with infantile head firmly fitting into it as into a pouch.

The head lying so low, completely plugs the lower segment, so that when labour begins no waters present and a very large number of labours are consequently very slow and

tedious in the first stage, unless the uterus be first well lifted, and a firm towell-bandage applied, and the patient kept on her back for some hours, since pushing up of the head simply with the finger is useless, the whole lower segment of the uterus fitting the head like a skull cap into which it sinks again as soon as the finger is removed.

From the same want of tone the force of labour pains is poor, with the tendency to exhaustion, and in my own practice I have to use the long forceps more frequently than the percentage of cases required in the Maternity Hospital, Rotten Row, when I had charge of it for three months under Dr Tannahill in 1876.

After the Os is dilated the second stage of labour is generally normal for we rarely haveany of the deformed or contracted pelvis which are so common in Scotland. I can only remamber one case of Craniotomy for deformity of the pelvis in my practice of twenty four years. This remark of course applies only to Colonial born women.

I find that the placenta comes away as usual, but as no sac of waters has presented, the membranes have not been moved or shifted and thus not loosened from the lining membrane of the uterus, and therefore remain lying closely against the uterine walls so that there is a strong tendency for the membranes to be caught inside the contracting uterus, and for the placenta to be excluded inside out. A peoularity which I ascribe to the want of tone en-gendered by the relaxing climate, is the "lazy" tendency of the uterus after labour. I have seen very many cases where in a moderate labour without exhaustion of the patient there are afterpains for a few hours with expulsion of some blood clots, and then everything appears to go on quite well and normally till

the fourth or sixth day when a slight feverish disturbance (but without suppression nor perceptible foetor of lochia) shews that something is still retained in the uterus, when an intra uterine injection and perhaps blunt curettage will bring away from one to four ounces of debris composed of blood clots, shreds, and remains of placenta, of the presence of which there has been no sign till the slight septic disturbance on the fourth or sixth day. This occurence is so common that I made a rule of intra uterine injections immediately after birth. I have known a case in the practice of a Confrere where a well-to-do lady remained apparently quite well and normal until the tenth day, and then suddenly developed septic fever, which caused her death, after the intra uterine injection and blunt currette had removed the two table-spoons-full of debris which had produced the poisoning.

The custom amongst the women is to rise on the tenth day but among the well-to-do very few are in fit condition to do so, and subinvolution and chronic Endometritis, with its glairy uterine discharge and vermilion raw Os and weak back is a very common result. The condition in after years is particularly tenacious, as complete dilation of the Os and cervix, thorough curettage, packing with ~~the~~ Iodoform gauze and a free application of solution of zinc chloride, will frequently fail to cure it and required to be repeated more than once.

From the scarcity of servants, ladies frequently have to be their own general servants and cooks even when from their social positions they could afford to pay for assistance, and this unaccustomed kitchen and other labour added to the relaxing climate has a pernicious effect on the pelvic organs of the pregnant, convalescent or nursing mother and upon her

general health in consequence; therefore it is quite to be expected that the baby can only be nursed for a month or two before the milk fails, soon to be followed by another pregnancy, the tendency in the Transvaal, being to be very prolific.

With a course of ergot, strychnine, and iron, and remaining recumbent for fourteen instead of the usual ten days, the mother's health generally becomes very fair again, but I cannot say that we have the vigorous healthy breeding woman of Europe in Pretoria, the usual tendency being to more or less of illhealth referable to the pelvic organs after the birth of a few children, and still not of such a serious nature as to prevent frequent pregnancy to the terror of the wife, who has to act the part of nurse, cook, lady, and mother in one, perhaps having only one stupid Kaffir "Boy" to assist her.

I cannot say that there is anything else peculiar to the lying-in period , the mothers' breasts, infantile icterus, navel cord, swollen infantile mammae requiring about the same attention as in Glasgow, and the difference in size and weight being about the old average of the Rotten Row Hospital with a tendency to larger and stouter babies in Pretoria.

The next disease which I will refer to as having a special interest for Pretoria is Malaria. The steep slope of Pretoria streets, the presence of very many Eucalyptus and other trees, the porous, gravelly soil, and a want of swamp, prevent Malaria having any strong initial hold in Pretoria, but persons who have had attacks in any other parts of the Transvaal, are very apt to relapse in Pretoria much more so than in Johannesburg

While the regular ague with its periodical attacks of rigor is rare in Pretoria, a milder form of general Malarial poisoning is very common during summer in the form of a more or less continuous fever, which generally begins with a more or less strong rigor, is very weakening for the week or so which it lasts, and is very amenable to quinine treatment, but outside of Pretoria, in the valleys of the Aapies, Pienaars, and Crocodile rivers, the regular ague attacks are common, the severity being dependant upon and in proportion to, the late summer and autumn rains.

The question of the origin and propagation of Malaria and Ague by the mosquito only, has to my mind not been proved in Pretoria and District.

When I arrived in Pretoria 14 years ago the furrows in the streets were unmasoned and open ditches with water running in them day and night, percolating into the vacant adjoining Erven (then more than half the building property of the town), and overgrown with luxuriant grass of 2 to 4 feet high, in many cases all wet and swampy, but then mosquitos were a rarity, and no mosquito nets were used in our houses, still the malarious poisoning and fever, starting with an initial strong rigor were much more common than now, when our furrows are masoned up, the vacant erven are largely built upon, very little of the tall grass is able to grow, and the mosquito rages in thousands so that sleep is impossible without a net or the burning of

drugs to drive them off, but even with these precautions children and adults are bitten severely, while in my experience the fever has markedly decreased in the last 8 or 10 years, but then so also has our autumn rain-fall.

The history of the mosquito in Pretoria dates from the opening of the railways from Delagoa Bay and Natal to the Transvaal, and whatever the connection may be, the fact remains,. This is proved by the statement of a store-keeper in Pretoria, who told me that he used to ~~[illegible]~~ sell mosquito-netting to the value of a few pounds per season for keeping flies and insects away from sleeping babies, that the season following upon the opening of these railways he had sold over ~~£~~ £100 worth, and that in the next season (when I spoke to him) he had disposed of over £300 worth.

I have very frequently enquired from farmers on whose farms the Malaria and Ague appear to a greater or lesser degree every year in the valleys around Pretoria, as to their experience of mosquitos and the quantity of autumn rains in connection with the severity of Malaria on thier farms, and they generally agree in stating that in dry years there is much less Malaria than in wet years, and that they have had no mosquitos in former years, and that where they now exist they are of recent origin.

My opinion is that while in Italy and other cultivated Countries the Malaria may have got to such a weak state in the soil, that it is not able to infect the inhabitants directly, and requires the mosquito to carry the poison and to inoculate it, but in newly developed countries like Transvaal the Malarial Miasma is so virulent and generates so fast that the soil, and the water oozing or percolating from it into the river courses, as well as the air around, are all contaminated and infectious to human beings, that the more rain we have, and

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the more moist heat, the faster the Malarial poison developes in moist places or stagnant pools, until even the low-lying vapours, which rise in the evening and morning contain the poison as well as the running streams.

It is a notable fact that the kaffirs, who generally have their 'kraals' on high ground on the master's farms, suffer less from Malaria than the whites, who build their houses in the valleys, near the water courses, so as to be near their irrigated fields and orchards. While both Boer and kaffir use the water on the same farm, the kaffir is generally particular to get his from the eye of some small spring rising directly from the rock, and will often have the drinking water carried for two or three miles in gourds rather than drink the running water of the open stream, which received drainage from the swampy valleys, and which the farmer uses for all household purposes, and as the farms are generally entirely free of mosquitos something else than they must be at work to produce the Malaria. When the autumn rains are heavy and much, so that the kaffirs have to be in the swampy ground with their cattle, they also are attacked severely by Malaria, and I have known a whole kraal of them, men, women and children, to be down with regular ague, so that they are by no means immune.

In a vast country with no systematic record and statistics it is impossible to give definite proofs, but I certainly believe that around Pretoria the severity of the autumn rains has a distinct effect upon the amount of Malaria which will occur in any particular season, quite independent of the presence or absence of the mosquito.

Among animals there is a disease known as horse-sickness in which there is an acute pneumonia or peuro-pneumonia, and which often kills by suffocation from frothy exudation filling the Trachea and Bronchial tubes. This horse-sickness is equally effected by the amount of autumn rain and swamp.

and swamp.

In dry places like Colesberg the disease is very rare, except when there is an unusually "good" year, i.e. more rain, and therefore more and luxuriant grass, and when in consequence the ground in the valleys remain moist and swampy, then the disease becomes rife and kills off large numbers of horses, while for several following years very few die. So in the Transvaal every farmer knows that the miasma from the valleys developes a poison in the moist, warm night-air, which produces horse-sickness, and which can be prevented by keeping the horses in the hills altogether, or inside the stables till after breakfast, when the sun has dispersed the miasma. I think it will be found later on that the poisons acting in Malaria and in horse-sickness are akin, and the mode of infection or inception very similar, by absorption of germ-laden air and drinking water.

One peculiarity which I have always noticed among the ailments of Pretoria, is that while Diphtheria is very prevalent in S. Africa, often in severe and fatal epidemic forms, and specially so in Bloemfontein, Pretoria has appeared to be practically immune to it. I have known it to be introduced on several occasions, and can remember four separate ones, in one of which it was imported from Natal into four different parts of the town within one week, which certainly offered every facility for an epidemic, still in every case either it died out in the house, or infected perhaps only one other person before disappearing, although the inmates had taken no special precaution to prevent its spreading, and owing to the habits of the Colonial people free intercourse in the sick-rooms had been carried on against the Doctor's orders.

Seeing that Pretoria has moisture, warmth, bad drainage, a soil heavily charged with organic matter, and much sub-soil water, I would have expected that Diphtheria would luxuriate here as does Enteric fever.

On my return to Pretoria a week ago, and after the above had been written I heard that it had taken now a hold in the poorer parts of the Town where the soldiers frequent, but I have not been able to get details.

Typhoid Fever has been during my time an importation, my first cases being among some Drivers of the line of coaches which ran from Kimberley via Johannesburg to Pretoria. The first two cases of which I knew, had been treated by the patients friends as low fever, the excreta had been thrown into holes dug in the garden, the linen had been washed on the premises, or in the water running in the street furrows, while the drinking water of the whole community at that time was taken from tanks, or from shallow wells, dug on the premises and containing the percolating surface water before described. I was called to see one of the two just before his death, and had the other removed to the then newly Opened Hospital.

Since writing the above I have been able to obtain parts of two Annual Hospital Reports which I wrote for the lay Committee while I had charge of the Hospital, 1890 - 1895, in which I find this epidemic of Enteric Fever referred to and the numbers of cases given (see page 44)

I may shortly say that since that time Enteric Fever has become endemic in Pretoria and that it increased heavily after the occupation by the Troops, notwithstanding that a Law of notification of Infectious diseases ~~which~~ was at once enforced by the British after their entry.

I however find amongst my private patients that the disease is not anything like so fatal as in the Military Hospital, although many cases are very severe. I find that a

constant abdominal cold pack, cold sponging at three or four hour-intervals, (or frequently enough to keep the temperature down) so as to ride in severe cases between 101 and 103 degrees followed if necessary by cold sheet packs, ice bags or even baths ~~and~~ (begun luke warm and chilled after the patient is in) If the sponging cannot keep temperature down, it generally relieves the patient, while Aromatic chalk powder and salol, combined with laxatives to keep the bowels moved at least once in 36 hours, and given all through the illness regularly, appear to prevent the flatulent distension (which is so troublesome and dangerouds for peforation and haemorrhage), and to which I partly ascribe the fact that I very seldom find any haemorrhage in my cases. Stimulants, generally brandy or whisky, are used as soon as the pulse becomes soft, quick or interrupted, from four to twelve ounces a day according to circumstances and I add cinchona and strychnia for the heart if required, and with suitable light nourishment the cases generally do well.

Pneumonia as may be expected from the sudden change of the temperature, and from the presence of dirty dust blown off the unclean streets into the air, is frequent, specially among children, but cannot be said to be more fatal than in European practice, in fact I generally consider the prognosis of pneumonia good if seen early and watched, except in one form, where irrespective of the extent of lung implicated the patient becomes oppressed and cyanosed, and dies from heart failure on the third to the fifth day of the illness quite unresponsive to treatment or stimulation, a form which I associate with blood poisoning produced by some of the filth inhaled in the dust above spoken of, as I have noticed on two different occasions, separated by several years, when so

called street repairs were made late in the autumn, and left a large amount of loose debris on the streets during the dry season of winter, that they were followed by so many such severe attacks of Pneumonia that it became a fatal epidemic; two Medical Practitioners, amongst others, died within a fortnight of each other from this fatal form, but no post-mortem nor microscopical examinations were possible at that time. Within recent years the streets of Pretoria have been swept more or less, and very much less of this virulent pneumonia has been seen. I only remember one case in my practice ~~seen~~ since Pretoria was taken by the British Troops. I see that Dr Douglass Powell in his book refers to Pathogenic-pneumonia caused by septic absorption from wounds, and by bad sanitary conditions, or exposure to sewerage gas emanations, and he says "this is more a general septicaemic condition with lung implication, nor severe, the poison kills the patient not the lung". This is certainly not the case in Pretoria, for while I believe the cause to be septic the attack comes in a healthy person, is very sudden and acute with the rigor and all the physical signs of acute pneumonia, the patient is at once and continuously oppressed and distressed, very much flushed, nostrils heaving widely, rusty sputum very free from the first hour, in fact the rigor, cough, and rusty sputum are often simultaneous; and neither aconite, veratrum nor ~~antemy~~ antimony given early, nor Ammonia Strychnia, Cinchona, Digitalis, nor other heart tonics given all through the illness, appear to have any appreciable effect; some recover and most of them die, but I cannot say that the treatment has any beneficial influence. I have not tried the heroic treatment of cold baths followed by almost constant cold compresses as now practiced by some Germans, but wish

to try it in the first suitable case which offers.

Since writing the above I hear that every dry and dusty winter and spring has again produced many cases of Pnuemonia with a very large percentage of deaths, so I expect the same disease has again been at work during my absence from Pretoria.

In connection with the etiology of pnuemonia it is interesting to note that during the war, although the Boers were exposed to all the vicissitudes of weather and climate often remaining for several days with wet clothes and blankets in Natal, pneumonia was rare although feverish colds, here called Influenza-colds, were common around Ladysmith and Dundee, where I saw them.

Bilharzia haematobia is one of the diseases to be specially mentioned in Pretoria, and yet it does not belong to the Town, the cases I have seen came from other districts either to business or to school in Pretoria, and although several Districts were represented, I think that Rustenburg, lying directly West from Pretoria, had the preponderance, in fact I cannot remember one case of a boy born and bred in Pretoria who suffered from this disease.

I have tried Capaiba, Cubebs, and Turpentine, also the round of Balsamic Drugs interhally without any beneficial effect, also Carbolic Acid, Salol, Salicylic preparations used internally until the urine was smoky from their action, also injections of antiseptics and astringents, but my experience was that the animal can bear as much as the coats of as the bladder can, and that tenesmus is produced before the animal can be killed.

Although improvement for some months has been frequently observed it could not with certainty be ascribed to any line of treatment, for spontaneous temporary improvements, sometimes

apparently influenced by the climate, and certainly by the duties of the patient, occur in nearly every case, the disease also has a tendency to decrease with age at adolescence, after which it mostly disappears, nor does it appear to damage the urinary organs in anyway; I had no opportunity of using methylene blue as advocated by Lieut Lelean in the B.M. Journal in May last.

The infectious diseases do not offer any peculiarity in their course of duration, and from the common and general intercourse nearly every child met with will have had measles and mumps, most of them whooping cough and scarlet fever, and every white child will be found vaccinated, for both Colonial whites and civilised blacks have a fear of small pox and believe in vaccination, of the efficacy of which Pretoria had a forcible example in the last epidemic of small pox. A British family named Gilbert consisting of Mr and Mrs and four children had not been vaccinated and associated with another British family Goodall consisting of Mr, Mrs and one child also unvaccinated, when Mr and Mrs Gilbert were attacked by what proved to be virulent small pox but masked on the third day of the illness by a general and profuse rash exactly like very severe measles which within 12 hours entirely obscured the small pox eruption. The family Doctor reported the case as suspicious of small-pox, but when the Government District Surgeon called, the second rash had appeared, the two families had mixed under the impression that it "was only severe measles", and one elderly man Barnes who had been vaccinated as a child, also a young man Schunke, who had been vaccinated 8 or 9 years earlier had visited the Gilberts, while an elderly nurse Mrs Hall, who had small pox

lightly during childhood, and another elderly nurse Mrs Goodwin who had been vaccinated as a baby, and as a school girl, were engaged to attend to the two invalids. On the 6th or 7th day of the illness a Government commission of Medical men declared the two Gilberts to be suffering from violent small pox and they were all subject to quarantine, the children who had never been vaccinated were now vaccinated for the first time. The result was as follows :- Mr and Mrs Gilbert Gilbert died of confluent haemorrhagic small pox on the 9th day of illness, Mr and Mrs Goodhall both developed the disease and died, neither allowing themselves to be vaccinated, Mr Barnes contracted the same form of virulent black pox from his visit to the Gilberts and died (vaccinated as a boy only), and one of the recently vaccinated Gilberts children died the others recovered very badly marked.

Both nurses, and the young man Schunke sickened severely with back ache, high fever, etc, the young man had no measles eruption, but three vesicles rose to the size of sago grains and they dried up and disappeared without any crusting or other sequelae. Mrs Hall had no measles eruption but one vesicle in the left groin which dried up on the fifth day without any crusting. Mrs Goodwin had an eruption like severe confluent measles on the head and neck only, this passed down the body to the toes but remained about 12 inches wide , as it appeared progressively lower on the trunk it completely disappeared above, this was followed by fine scaly desquamation of the whole body, but she had no vesicles at all, nor any sequelae. Mr Barnes's wife and two children were vaccinated as soon as he took ill, that of the children grew, but hers did not. Mrs Barnes sufferred very moderately as for small pox but had no eruption, was removed to the

lazaretto and was well in about a week from date of illness, while the two children did not take ill at all. Mrs B. had been vaccinated some years before; she could not tell the time definitely but thought eight years . These cases all occurred during an emidemic of small pox, distinctly shewed the violent nature it would have assumed if not checked by former or recent vaccination, and how soon timely and successful vaccination of the Barnes' children completely protected them. Of these I attended the Barnes family and Schunke, saw the Gilbert children and the two nurses in consultation at different stages, saw Mr and Mrs Gilbert as one of the Government Commission for diagnosis.

Measles present one peculiarity in Pretoria, that is — one attack does not procure immunity from subsequent attacks, I have heard of scores of cases of second attacks, but personally I can vouch for the following:- Gert Riekert, a Boer Field Cornet, 30 years of age, had two severe attacks of measles with characteristic symptoms and signs within eighteen months, the second time with much vomiting, and gastric irritation, hard dried tongue and lips, and much depression. In both attacks I attended him. During an epidemic of measles in Pretoria in August 1899 I found so many recurrent attacks that I made notes of the following:-

Charlie Constanton, 14 years, had had measles at age of 18 months; Annie aged 12 also now ill had it at 5 years; Fay now ill aged 9, had it at 3 years; Gladys now ill aged 7 had it at 5½ years; while the Mother now lightly ill, but with characteristic appearance of eyes, eruption, etc, had it at 5 years, again at 16, and now for the third time.

During the same epidemic I ~~he~~ also attended all the following:-

Alfred Evans. aged 6 years had it at 15 months.

Philip Atterbury now 4 years, had it at 11 months.

Cecil Breakspear now 6 years " 2 years.

George Breakspear now 4 years " 2 years.

May Breakspear now 9 years " 7 years. and also at 2 years.

Ethel Scrooby now 5 years, severely, had it at 1 year.

3 Children of Mrs Levy, but as she could not give the definite ages at the first attacks, I have not detailed them.

Thus there were 14 cases of certain recurrence in my own practice during one epidemic, and these are not cases of mistaken diagnosis, for an account of measles being so common here, every mother of three or four children knows the disease well.

Typhus Fever has never been known in this Country that I know of, nor the plague, although there was a suspicion of the latter once imported from Delagoa Bay; but Syphilis, inherited and acquired, is met with freely, especially among the native "Kraal" Kaffirs of Transvaal, where it is not propagated by prostitution, but by one child infecting another mostly through the ~~night~~ mouth when playing together in their little Kraals. I have seen several cases where such children have again infected the Mother's nipple, and that later the Father has been infected from the Mother, while in other cases the Father appears to have escaped. This mode of propagation is unfortunately not confined to the Natives and I can bring two unfortunate cases to mind in which the native nurse girl had infected the white infant's mouth, to be carried

in turn to the Lady's breast, and so on to her Husband. In general terms syphilis is not noticeably more common among the white population then in Scotland, but amongst the Transvall Kaffir (not the Zulu) it is very common, being met with in every form and stage, several cases of total blindness produced by it having been brought to me. The extermination of the disease amongst these Natives would be very difficult. from the way in which they mix up in their huts and Kraals, eating with the hand out of one pot in common, and also because they treat themselves in preferneee to using the drugs of the "White Doctor" ; the herbs they use are not without danger, as some twentytwo years ago I attended a judicial examination for man-slaughter in which a Kaffir Doctor had given a woman and four children each a cup full of fresh decoction of herbs for syphilis (as he stated) and which killed the whole family within a few hours of taking the draughts; and the District Surgeon in the case proved that some of the same decoction had killed a healthy young dog with similar signs and symptons, in about a corresponding period of time,

The Natives themselves buy ordinary chrystdlized Sulphate of Copper for the use in their sickness, but are reticent when asked how they use it or what the affects are. I believe they use it as a powder on the ulcers.

Tubercular diseases are not indigenous to the Transvaal , Consumption is rare, while Lupus I do not remember seeing amongst the Boers, although I have seen it amongst European born people but even then it is rare.

Scrofula and Rickets in the sense of being sequence of a tuberculous disease is rare, but in the sense of being an inheritance of a syphilitic taint as held by M.ParYot

it is by no means rare, nor are Pott's curvature, and hunch backs rarities amongst the Natives, though much rarer amongst the ~~Boer~~ Boers. As I have never been called upon to treat any such case of vertebral disease I cannot say how the Natives act in them, but the healed hunchbacks are quite evident amongst the Kaffir servant "Boys" who come to Pretoria to seek employment.

I can give no statistics of Cancer; but a large number of cases which have occured in Pretoria during the first two years of the War have been specially noticeable and occasioned public remark, and this fact may possibly give a clue to etiology. It is very certain that although the War did not endanger the lives of those inhabitants who were allowed to remain in Pretoria still the general uncertainty and anxiety was felt acutely by every person, and as every one in the Town had either Father, Husband, Sons or Brothers in the Commandos, a very high degree of nervous tension was produced, and kept up for months continuously, and a question worth considering would be, in how far does such prolonged anxiety and general nervous tension stimulate the embryonic or other cells which after a certain amount of growth ultimately come to be called 'Cancer', - to start or take on said new growth. Three of the cases which I met with during the War were gastric Carcinoma, two in men and one in a woman, one of lingual Carcinoma in a man, one Sarcomma in the parotid gland in a man, and one sarcoma of the Mesentery of the small bowel in a woman.

I may next mention a human disease which is produced by an insect which has recently been introduced into Pretoria, namely a fly maggot and of which I have only known the existence in one kind of roebuck.

About 7 years ago a friend sent me two dead flies from Barberton, as being the veritable insect which stings the

human being and deposits the eggs under the true skin, but till then quite unknown in Pretoria.

Five years ago I saw a white child, about 6 years of age, and living two miles outside Pretoria, with two inflamed pustules on the right thigh which the Mother called boils, but which each had an opening and a dark spot at the apex, a poultice was applied to each, and at the end of 12 hours very gentle pressure was required to deliver a maggot from each, which were brought to me in a box, where in two or three days time they had both become little shrivelled brown chrysalis, and then died. The maggot was about the size, thickness and colour of the largest ones resulting from the ordinary blue bottle fly with a small black head, while the chrysalis was about half the size of the maggot. The child had been living for several months on this farm, over which the main road to the north passes from Pretoria, but no further history or connection could be traced, and this was the only case seen in that summer season.

In the next year I saw one case in a child of 10 years in Pretoria, and heard of three others, and in the next summer I saw twin babies of about one year old whose faces had been badly stung and who had some stings on thighs, legs, and arms, each shewing an inflamed pustule similiar to that seen in the first patient. Hot poultices removed twenty two maggots from the one, and I believe 12 from the other twin, when as in the former cases, the inflamed circle and the pain at once disappeared, and the clean cavities left were healed within a week leaving depressed soft cicatrices. During the last three years I have seen no cases, being out of Pretoria for part of the seasons owing to the War. The maggots from

the twins were placed in a ventilated pill box, some were immature, shrivelled as if to become chrysalis and died, the rest all underwent this change, and then some died, but three hatched out as flies of the size of the largest house fly, but of a broader and stronger build, a dusty brown colour on the body and with eyes the colour of brown velvet. I kept these till they died and then handed them to the Pretoria Museum with the dead chrysilas, but have not been able to get their proper name from the Curator.

Two illnesses occurred in Pretoria in Epidemic form which ought to be mentioned. Every two to three years a wave of Aphthous Stomatitis passes, leaving sharply defined ulcers of one quarter to one third diameter with a yellowish slough in the centre. It attacks children of one and a half to three years old, sometimes a dozen such ulcers are scattered along the edges of the tongue, the gums, the inside of the lower lip, and the angle of the mouth, and for a week causes much suffering and dribbling, sometimes the aphthae are even carried on to the chin and the outside of the throat producing irritable ulcers thereto. I remember one healthy boy of two and half years who sucked his thumb, and who from such an attack had several ulcers on the chin, as an overflow from the mouth, which were so painful that they weaned him of the thumb sucking. Borax and chlorate ofpotash in glycerine cures them in a few days if vigorously and regularly applied, but the application smarts so much that it is usually neglected and the disease then runs a course of a week or rather longer. While mostly attacking children who are busy with their eye-teeth or second molars, I have seen it in younger babies at all ages after dentition has

has begun, and a few cases in adults but then only a few ulcers at a time. After the epidemic has passed the disease disappears altogether, but the ordinary Thrush or paraditic Stomatitis is very common during the first three months of life, mostly so in the first week, when the attendent Midwifery nurses persist in feeding and overfeeding babies with sweetened condensed milk, sugar water, and castor oil, etc, until the normal flow from the Mother's breast should be established.

The other epidemic referred to is Icterus, which I find Taylor casually refers to, and of which I have seen two, the last one occurring in the earlier months of this year. The patients had mostly no complaint to make except of the presence of the yellow discolouration, there being no fever, pain, or disturbance of the bowels, although a few had mild pain over the region of the Liver, and others had the bowels slightly disordered, oftener constipated than relaxed. The yellow colour gradually disappeared from the body, the treatment being mild salines and light diet, but others got well just as soon without any treatment. I saw a few children attacked, but young men and a few young women were the ~~principal~~ principal ones.

In connection with Jonathan Hutchisons' theory of notched and peg-topped teeth as a sign of congenital ~~syppyillis~~ Syphilis, I wish to draw attention to a possible fallacy. The public with us are very fond of giving "Steedmans Powders" to babies both before and during the dentition age, and in many such cases the mercury contained in these powders acts constitutionally and on the teeth, so that the incisors may come out of the gums notched, pegtopped, excoriated, ribbed or black, and always brittle, while within three or four years

they have all invariably gone black and decayed. Wherever I have found this condition I had enquired about the use of these powders, and always found that they had been used from two to six times a week, in some cases only when the babies had been out of sorts but more usually they are used regularly as a "cooling powder" to keep the bowels right. While a few of these cases may have had a syphilitic taint the most of them were without any suspicion, and the frequency of the condition leaves no doubt in my mind that the use of mercury in the first six months of infantile life can certainly produce any or all the signs in the first teeth which Hutchison ascribed to congenital syphilis.

While on baby treatment I may add that the Boer Women keep no regular hours, the baby is in arms the whole day and is allowed to drink at the brest or bottle whenever and as much as it likes, and very early, even in the fourth or fifth month it is generally fed from the Mothers plate at table, - pumpkin, potatoes, sweet potatoes, and even meat (which the mother masticates first) being given. Sometimes ~~it~~ it produces diarrhoea, and many die, the mortality amongst Boer babies on their farms being very heavy, but others, thrive remarkably on it becoming so fat as to have double folds of fat at all joints, and monst~~rous~~ers for size and growth. Many of these large and very fat overfed babies are severely troubled with Eczema of the face and head, more seldom of the body, I have seen cases where the whole face head and neck were one mass of scabs and discharging sores, the inside of the eyes being the only parts of the whole face which were not red or raw. Free purging and stinted diet with local soothing application soon dries and heals the Eczema.

One subject, on the borderland of Medicine & Surgery,

especially now that Freeyer appears to enucleate the Prostate so easily, I wish to refer to, that is the rarity of the Catheter life of old people for enlarged prostate among the Boers . These people marry early, and have generally not had any venereal excesses before marriage, and live a long married life. If a wife dies another is married as soon as decency allows, generally a young one, so that many old men of seventy have very young families including babies in arms in consequence of this habit. Still while the old men have prostatic enlargements sufficient to make urination slow and somewhat frequent they seldom come for professional treatment, and very rarely require to use catheter.
One case of sudden retention in a man of over eighty, and the use of catheter in one of over seventy whenever he is exposed to cold or wet weather, are the only two I can remember as actually being treated in consequence of enlargement of the prostate, but the chronic vesical inflammation from retained ammoniacal urine, so common in Europe is very rare.

In mentioning ~~this Enteric~~ the Endemic Diarrhoea of spring as climatic, I there only refer to an acute form of diarrhoea which soon has a more or less copious flow of mucus and blood with straining, and which disappears ~~again~~ again as soon as the diarrheoa can be checked; and which while also attacking adults is very severe on infants. This is in opposition to real Dysentery of which we had formedy had very little experience in Pretoria. During the five years 1890 - 1895, that I had charge of the "Volks Hospital" in Pretoria the cases of real Dysentery treated there mostly came from the Country, or from along the line of Railway works then being built from Delagoa Bay to Pretoria, during the last two years before the

War began cases of real Dysentery had been increasing both amongst adults and infants, but while many babies died of it, no adults had succumbed so far as I knew. After the occupation of Pretoria some new influence or poison began to work, and the last December and January a ~~fatal~~ form of violument and obstinate Dysentery broke out suddenly in different parts of the Town causing the death of several children and three well known married ladies after a few days of illness only, and producing a scare throughout the community. Luckily the cooler weather, and other unknown influences intervened and the epidemic ceased, but I look forward with interest to the coming summer,. Even the onfall of the Spring and summer Diarrhoea is often very sudden, During January last an epidemic occurred and within the first two days I had nine patients in different parts of the Town who all took ill suddenly and without known cause with sudden and violent griping soon followed by the passage of Mucus and some blood.

I have found the laxative treatment by mag.sulph. combined with carminatives and alkalies the best for this latter form but formerly ordinary astringents and sedatives as pulv.kino co, Bismuth, and cret, arom. were enough to stop our ordinary spring Diarrhoea, while they have very little ~~effet~~ effect on the course of the disease in its more recent form above mentioned.

Before referring to some Surgical cases specially, I may state that when I arrived in Pretoria a few days ago I had search made in the Government Offices for five annual reports which I had sent to the Committee of the Volks Hospital while I had sole charge of it, upon the number of

patients, the diseases, treatment, operations, deaths, nationalties etc, but owing to the change of Government and the destruction of old papers , I could only find parts of the reports for 1891-2- and for 1894-5, and as these would have shewn some of my work there, and also the natures and proportions of the different ailments, I much regret being unable to attach more than these fragments, but even in them the first epidemic of Enteric Fever in Pretoria of which I had already made mention before I received them, and the prevalence of Dysentery on the Railway Works are referred to.

This Hospital was entirely supported and controlled by the late Government by means of a Government Committee of Laymen, I was in charge for five years but not resident, having a telephone from it to my house. As the reports shew, it was open to all nationalties, and patients were admitted free if they could not afford to pay for their board, all kind of cases were admitted except contagious and infectious ones. The number of beds including the single and double rooms and Wards were forty, for the reports see pages 44 to 55.

In connection with my Surgical work in Pretoria, I took to Glasgow and left with Professor Muir in the Pathological Institute of the Western Infirmary three specimens, from patients whom I operated on successfully here, two in this Hospital and one before its existence, namely :- two of Ovarian Cysts, and one Dilated Kidney and Ureter, and I also enclose herewith a photo of the man W. Nel whose Kidney is above referred to, shewing his present healthy appearance while living with only one diseased Kidney, I also enclose I photo of a Kaffir suffering from Cheloid from whom both the tumours of the ears were removed, details of these operations I will now add.

My first Ovariotomy was undertaken before there were any Nurses in Pretoria nor any Hospital, and the difficulties encountered were stupendous, this being the first of its kind in the Transvaal.

At the end of 1888 a young and poor Boer Woman consulted me about her fast increasing size, and I diagnosed an ovarian tumour, and advised operation, which was performed on the twenty second of February 1899, in a small Boer house of two rooms in Pretoria. The operating or bedroom was ten feet square with a window open of eighteen by twentyfour inches, into which no glass had been put but there was an outside shutter, while the floor was made of earth "smeared" over with cowdung and clay to harden it somewhat, while the patients bed was a self-made one of forest cut timber lashed and laced with raw ox hide thongs.

The old woman, a midwife, ~~was~~ who was to have acted as Nurse failed me on the morning of the operation by saying that she was ill but I subsequently heard that she had 'funked' the operation, and the primitive young Boer Husband and myself had to act as Nurses day and night for a fortnight, while the only persons present at the operation were a Chemist as my general and only Assistant, and the Medical Confrere who administered Chloroform as the anaesthetic, while the operating table was composed of two small American Deal Dressing Tables tied together. The little room was freely fumigated with ~~sup~~ sulphur early on the morning of the operation, and as the window was so small the operation had to be done soon after sunrise so as to get light enough into the place.

History :- Mrs Van Der Sant, a Boer's wife, Pretoria District aged 21, married 5 years, had two children, youngest

one and half years of age. In August 1888 she first noticed a swelling of the abdomen, rising specially in and from the left groin, and a month later noticed a "lump" on the top of the general smooth tumour, then opposite the Umbilicus. The whole had grown steadily and quickly, the upper tumor is now ~~with~~ (on the 27th of February 1899) directly behind the ~~cart~~ costal cartilages of the left side while the abdomen presents the appearance of pregnancy at full term and carrying very high. She weaned her last child four months ago, and menstruated on the 23rd of November and again on the twenty second December, about the 20th of January 1889, and the fourteenth of February, after she was in Pretoria for the operation. She is a thin wiry healthy woman but has become Anaemic in the last few months; family history is unimportant.

Physical examination - the abdomen is tensely filled with a globular tumour projecting up to and rising behind the cartilages of the 8th and 9th ribs on both sides and moves slightly from side to side by change of position. It has an nodular projection on the upper left side as of another cyst, projecting behind the ribs.

After the usual Carbolic cleaning and preparations then in vogue, the operation was begun by a ~~mediumin~~ median incision from Umbilicus to Pubis, four inches long, six reputed quart bottles of thin limpid dark mecomium coloured fluid with pieces of fibrin stained dark yellow and floating free in it, was removed. The cyst wall was adherent very extensively, to the abdominal walls above the umbilicus to the lower surface of the stomach, to the Mesentery for at least six inches and to the walls of the small bowels in

in several places, in fact it had grown fast wherever it had touched, and required very troublesome dissection the tying of many vessels, and in some places small pieces of the cyst wall had to be left adherent to the bowel. I have never seen an ovarian cyst with so many and such strong adhesions, and very much doubt whether I would have operated on her under the surrounding difficultids and absence of all ordinary hospital comforts and nursing, had I known of these extensive adhesions, for the tumour had given the impression of being freely movable at the examination of my Confrere and myself in consultation. The projection on the upper side was composed of a bunch of small cysts of various sizes, containing clear glairy fluid, of which more than a dozen were visible around the surface, and the whole group was surrounded by one enclosing membrane with the largest cyst projecting from one side, and one small cyst the size of a filbert was floating free on a pedicle of several inches long, and projecting from the side of the largest cyst, it was also filled with glairy fluid; the bunch of Cysts appeared to be a cystic ovary, and was about five times the size of ~~unnormal~~ a normal kidney, and several had to pierced before the mass could be removed through the four inch incision. A pedicle of two and a half inches long by four inches circumference was tied into two parts with thick silk, cut off one inch from ligature, and dropped in. After the toilette of the abdomen then in vogue had been made, ~~and~~ a large drainage tube was left in the pelvic cavity (for three days,) and deep and superficial suttures used in the abdominal walls. The nursing strain of the first four days

was severe on me, with my ordinary practice to attend to, and only a stupid young Boer Husband to leave in charge when I was absent, however the patient rallied and convalesced well, the bowels moved naturally three times on the fifth day, menstruation came with pain on the 13th to 15th of March and the small abcess and sinus formed, and one of the deep silk ligatures came away, but all this healed within a few weeks. On twenty eighth of March she was allowed up for a short time and I sent her to their farm quite well after she had again menstrated on the eleventh of April 1889.

I lost sight of her for some years but shortly before the War she returned to Pretoria still quite well, and I found that she had had four normal pregnancies and labours, a son being born on the twenty ninth of December 1892, then two daughters in succession, and again a son on twenty first January 1897, since which time I have heard nothing further about her.

The fact of ~~two~~ the birth of two sons and two daughters from one ovary is of interest in connection with the idea which prevails amongst breeders of cattle in Britain that the sex of the progeny is determined by the ovary from which that pregnancy has taken place, that male and female calves are produced by the right and left ovaries respectively in alternative months, and that the sex may be determined at choice by causing the pregnancy to occur in any particular month after the birth of the first calf has given the clue of the sex.

The second ovariance sac in the possession of DrProfessor Muir was removed under very different circumstances, for I was then in charge of the Volks Hospital, and had my Colonial trained Nurses, the patient was properly looked after and

and made a speedy and uninterrupted recovery, so that the operation requires no futher description, and in comparison with the difficulties of the first does not seem worthy of report, except as a successful major operation.

The next specimen which I left with Professor Muir and to which I wish to refer, is a very much dilated sacular kidney, with largely dilated and sacular ureter and a stricture at the vesical end, on which I hoped to have a report from him or from Dr A.R.Ferguson, his Assistant, on my arrival in Pretoria but it has unfortunately not arrived and I must hasten if this ~~ceases~~ thesis is to be in Glasgow by the first of October.

Case of Pyo-hydro-nephrosis with operation first of August 1899.

W. Nel a well built, and otherwise healthy well to do Transvaal Boer living on his farm, lying in the cavernous lime stone formation before mentioned, had been under my ~~trat~~ treatment off and on for ten years suffering from renal colic, pas-sage of gravel, and now and thenof a small stone the first ones composed of uric acid the latter ones phosphatic; sometimes feeling well for months at others ailing for months, the latter periods increasing until for the last two years he had had nearly constant pain in the region of the right Kidney and back, with stringy deposit of pus in cloudy ammoniacal urine sometimes to the extent of two ounces of pus in forty eight ounces of urine.

A definite enlargement of the kidney could be felt in these two years, and as no more stones had been passed the dilatation and heavy suppuration were ascribed to an impacted calculus in the pelvis of the kidney. As it appeared

that on the treatment and confinement to bed for the last two months, the urine had greatly improved, it was daily and regularly measured for several weeks before the operation, and I found that the twenty four hours accumulation during the last five days before operation averaged 110 ounces in twenty four hours. It was pale yellow, cloudy from the presence of pus, slightly alkaline, not ammoniacal in smell, specific gravity 1010, pus ~~of an~~ half an ounce. (½ oz in 24 hrs)

Two days before the operation I inserted an aspirating needle into the tumour and forty eight ounces of urine was drawn off at one sitting similar to the above.

When admitted to Hospital for operation he was pale and anæmic but otherwise in very good general condition considering the waste from suppuration which had being going on so long,. He took light nourishment fairly well, but with occassional attacks of vomiting, the pain of the kidney was moderate, and he slept and dosed a good deal except when he had to rise to pass water, which he had sometimes to do frequently complaining of a bearing down sensation into the bladder.

On examination a large irregular rounded tumour could be felt filling the whole right of the abdomen, projecting in under the liver and ribs, and disappearing indefinitely towards the brim of the pelvis, and fluctuation was distinct.

The place I selected for operation was Langenbuchs , as the long axis of the tumour lay from the axilla towards the pelvis. After the abdomen had been opened I aspirated 56 ounces of urine and rather more than one ounce of pus from the Kidney, (which gives an idea of the size of the tumour), and then found that the capsule was adherent everywhere to the dilated Kidney, and that inflammatory adhesions had taken

place against the lower side of the liver and to the peritoneum and mesentery wherever they had been in contact with it, many adhesions being too strong to be torn off, and requiring ligature and cutting away.

When the ~~capsule~~ capsule had been cleared so that the kidney could be handled I found that there was no stone anywhere, but the ureter was very much dilated and sacculated, with a stricture near the entrance to the bladder, and a large deposit of fat all round it, the tissues forming the stricture were much indurated, and it is on the pathological condition of this induration and of the fatty deposit around it that I was anxious to get the opinion of Professor Muir, or of Dr A.R. Ferguson above mentioned, as the consistence in the fresh condition was almost gristley in hardness, and I had to tie the lowest ligature just where the ureter enters the bladder to entirely escape this induration.

The Kidney was so large that this part of the ureter could not be reached for ligature through the abdominal incision so I had to remove the kidney first, and then tie the dilated ureter and remove it, hence now they are seen as two different specimens in the bottles.

There had never been any complaints referable to the left kidney, but as the abdomen was open I thought it best to examine it also by hand, and to my surprise my fingers struck against a calculus with a flat surface of at least one inch long and three quarter inch broad, lying in the cortex in the upper anterior part of a slightly enlarged but otherwise healthy kidney and on touching the stone distinct crepitation of two stones against each other was felt. As the operation had already lasted one and half hours, and from the extensive adhesions which had to be torn or cut away the prognosis

seemed grave I decided to leave the left Kidney intact.

The patient rallied well , and had very little complaint except of squeamishness for twenty four hours, the temperature remained below the normal for several days consecutively and then became normal, but the pulse remained always rapid for nine days after the operation, sometimes as high as a 120 per minute, although he gained strength and spirits so rapidly that on the fourth day he asked when he would be allowed to sit up.

He passed water freely without aid of a catheter, and on the second day it had risen to five pints by measure for the twenty four hours, it was always pale, slighly clouded with pus, alkaline but not stinking, Specific grav. 1010 .

His convalescence was uneventful except for two deep silk threads which produced small abscesses discharging small quantities of pus for three months and then healed up after the ligatures had been found and withdrawn.

It is now a little over three years, and his urine has always remained free, in fact rather profuse, pale and slighly cloudy from pus, but the pus does not amount to more than from a few drops to half a teaspoonful in twenty four hours, and he has been in splendid health since, having gone through an attack of our influenza, and at another time Pneumonia in the upper third of the right lung, from both of which he recovered in a normal manner.

He took no part in the war, remained on his farm ~~and~~ until Pretoria was taken, when the British Officers sent him into Town where he was living when I left here six months ago, since which he sent me his photo which I attach.

I will refer to one more surgical condition, which is not rare among the Kaffirs, although I have not seen any other

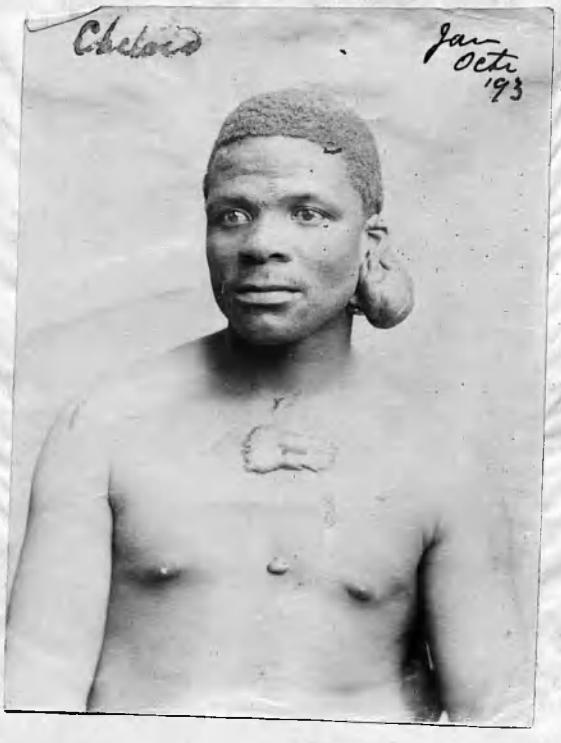
Wm Nel of Kalkheuvel, distt Pretoria
from whom the R. Kidney was removed,
& who has the Calculi in the L. kidney
as mentioned in the text
Photo taken in April 1902.

case where it has grown so large as in the one about to be described, and of which I attach a photo, I refer to Cheloid disease.

John, a Zulu Kaffir from Natal, in constant good health, and well built, with unimportant family history, had during youth an illness, nature unknown, for which according to Kaffir custom, he was scarified on the chest, otherwise he was always healthy, and the other scars are all from little injuries.

The date of beginning of the present disease he cannot accurately define, but he puts it at about five years, when without any known cause all the cicatrices on his body began to pain, then to swell and to grow, until after some months of steady growth they attained to their present sizes, when they all ceased to grow, except those of both the artificial earholes which continued to increase steadily (and now painlessly) during the full five years, and with no further suffering than the dragging painful weight when the head was moved. Both ears were similiarly affected and the tumours were nearly of the same size, weight, and attachment, but one had been removed before the photo was taken. All cicatrices on the body were prominent, but only those shewn on the photo,—on the chest, head and neck had grown to any size,—where five can bee seen on thorax and shoulder, one under the chin, one on the left temple, and two on the tumour of the ear, also one just above the ear; the first ear tumour I removed and the 5th of September 1893, it weighed 5½ ounces; that shewn on the photo was removed one month later.

It will be noticed that attachments include the ear, passed behind it, and are seen on the skin of the neck, but they did not pass into the muscles at any part. I removed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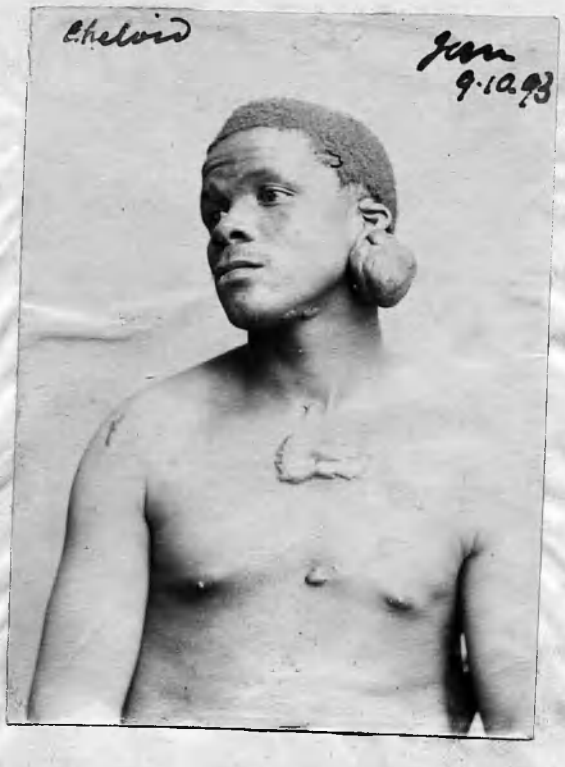
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the whole of the thickened skin freely and on the right side I slipped up part of the skin lying over the Sterno-mastoid muscle so as to cover the wound which was over two inches diameter, on the left side so much of the ear was included in the tumour that after dissecting it off I used the ear itself to form a flap, and stitched it into part of the wound leaving only the back rounded edge free, this did away with about two inches of this wound, and the remainder was covered by a skin flap from above the Sterno-mastoid region also. My intention was to leave no open parts to granulate for fear of relapses, the plastic operations covered the whole of the wounds, and the parts healed by immediate union. He was kept at work about the Hospital for more than a month but no relapse occurred, I also saw him off and on for six months after in Pretoria, during which time all the cicatrices remained quiet, and then I lost sight of him.

Among the whites I have not met with this disease at all.

When I began ~~the~~ writing in Glasgow during July last I hoped that by delaying I would be able to add the thermometrical readings before mentioned here in Pretoria, and also my complete Hospital Reports for the five years, and also Professor Muirs' report before mentioned so as to make the whole of more practical interest, but the exigencies of war has removed the two former records and the latter has not arrived, ~~and~~ while the time for sending this thesis in is so short, that by posting immediately it can only barely arrive in Glasgow by the 1st of October, I must therefore close my humble efforts with the hope of having shewn original observation and practical work in what I have recorded.

J. B. Mitchell.
M.B. Honours Glasg. L.R.C.S. Edin.

Pretoria
11th Sept. 1902.

(C O P Y . and Translation from the Dutch.)

GENERAL REPORT of VOLKSHOSPITAL

from 1st May to 30th April 1892.

Doctor in Charge : Dr. J. B. KNOBEL.

As the Committee know during the past year the New Hospital has been completed and opened for use. There were in the old hospital on the first of May eleven patients, and fifty-seven more were admitted till the 10th of October, on which date the new one was opened, and five patients were transferred, since which time the old one has been entirely closed, it not having been opened as a Native Hospital yet as was anticipated.

Till the 30th of April 101 patients were admitted into the new hospital, making a total of 179 for the year, composed of 149 men, and 30 women, and leaving in the hospital a balance of 11 still under treatment on the 1st of May 1892.

Judging from the nature of ilnesses sent to the hospital the health of Pretoria has been very good during the past year. Owing to the dry season and moderate rains malarial fever has been very slight, and if it were not for a considerable number of ague and other malarial patients, who came from Komati Poort and Klein Letaba districts and also from Mashonaland, there would probably only have been half the present number of 32 - treated.

Typhoid or Enteric fever which practically started in Pretoria in an epidemic form in about August and September 1890 is still lingering on, and we have treated 14 during the year, as against 34 last year, and 16 in the latter part of the year before. There are also strong indications

- of the -

of the Typhoid and Malarial poisons becoming mixed in Pretoria, and producing Typhoid-malarial fever, two marked cases being recorded in the list of deceases, although several others with the Typhoid symptoms less marked may have been added to the catagory, instead of to the Malarial group.

There have been no contagious or infectious diseases in Pretoria, and the Influenza which broke out here during the last few months showed nothing different to the Influenza indigenous to S. Africa, and known to every inhabitant, and is not in my opinion identical with the Le Grippe which has travelled through the greater part of the world.

Pretoria has been unusally free from Pneumonia or Inflamation of the Lungs, and while we treated 9 last year, this year with a larger total of patients we have had only 2 patients.

Of the 179 patients 12 died, including 3 admitted in a moribund condition.

The variety of Nationalities and Religions remainsas great as before, S. Africa and Great Britain having the largest numbers in both cases.

Operations, fractures and accidents do not form such a large percentage as in the hospitals of Mining Communities, but it is probable that the advent of the railway will largely increase the proportion, as it has done in other parts of the world.

I wish to remind the Committee that the so-called padded-rooms have not yet received their padding, and it is desirable that one of them should be completed at once for the patients who become delirious from Malarial fever or Drink; also to draw attention to the fact that the Kitchen range passed and sanctioned by Mr. Wierda, the Chief of Public Works, is inadequate, most of the cooking

having to be done on another range and in a separate room, and the supply of hot water for baths and washing being merely luke-warm at the best.

I have the honour, &c.,

NATURE of ILLNESSES treated during the Current Year.

Apoplexy	1.
Abscesses - serious	
Thigh and Knee-joint	1
Perinaeum and both groins from ruptured stricture	1
finger-joint	1
around hip-joint, from Morbus Coxae	1
Lumbar	1
ILio-lumbar	1
Several small abscesses	
Blood poisoning and Erysipelas	4
Catarrh, —	
Gastric	1
Intestinal	1
Diarrhoea	6
Delerium Tremens	6

Dislocations : -	
Ankle	1
shoulder	1
wrist	1
Diabetes	1
Dysentery	6
Eye diseases -	
Cataract	1
Double Glaucoma	2
Gun shot into Eye-ball	1
blindmess from Chronic Trachoma	1
ditto .. degeneration optic nerve	1
Pterygium	1
Ophthalmia	1
Epilepsy	5
Fevers : -	
Ague and other Malarias	32
Typho-malaria	2
Enteric	14
Fractures : -	
Femur	2
Tibia	2
Ribs	1
Radius	1
General debility	1
Grave's disease	1
Genital organs —	
Hydrocele	1

Genital organs (continued)	
Phymosis	3
Stricture	2
Orchitis	2
Hypospadias	1
varicocele	1
Syphilis	3
Haemorrhage, —	
Nose	1
Stomach	1
Haemorrhoids	2
Heart Diseases, —	
Valvular	4
Influenza	3
Kidney Diseases, —	
Suppuration from Calculas	2
Haematuria	1
Uraemic convulsions	2
Liver Diseases : -	
with dropsy	4
.. Epilepsy	2
.. Jaundice	2
.. Abscess	1
Mania	1
Mercurial poisoning	2
Paralysis, —	
Limbs - chronic	2
Locomotar ataxy	1

~~Rare~~

Prolapse - Uterus and Bladder	1
Rectum	2
Peritonitis	1
Pleurisy	2
Pneumonia	2
Rheumatism - chronic	2
Acute Arthritis	3
S k i n : -	
Eczema Rubra of whole body	1
Sciatica	2
Tumours, -	
Abdominal	1
Brain	2
Ulcers - Varicose	3

OPERATIONS and Results, - my Patients.

Amputations : -		
Thigh,	recovery	1
Forearm	..	1
Shattered thumb & 2 fingers	..	1
First finger		1
Gouging femur	..	1
Stricture, ruptured urethra, gangrene of scrotum and groin, plastic operation	..	1

Chronic Suppuration and Sinuses from Renal calculas	recovery	1	
	admitted moribund	1	2
Peri-rectal abscess	recovery	1	
Dynamite accident, face, hands and eyes	..	1	
Gun-shot wounds through elbow	..	1	
.. leg	..	1	
Blood poisoning and suppuration of arm	..	2	
E y e : -			
Resection optic nerve	..	1	
Glaucoma, double iridectomy	..	2	
Cataract, removal, single	1.	1	
Pterygium, double, removed	..	1	
Hypospadias, plasticoperation	..	1	
Hydrocele, dissected out	..	1	
Circumcision	..	2	
Varicocele	..	1	
Colpo-and perineorrhaphy	..	1	
Minor, op abscesses, various.			

Among 85 patients – 6

DEATHS during current year - my patients -

Alcoholic Apoplexy	admitted moribund, male	1
Enteric fever and chronic valvular disease of heart	..	1
Enteric fever	1 male , 1 female	2
Epilepsy, cirhosis of liver and dropsy	admitted moribund, male	1
Uraemic-coma due to calculi and extensive chronic suppuration in both kidneys	male	1
Uraemic conculsions	..	1

Among 114 Patients - deaths .. 7

Private paying Patients of other doctors, treated in this hospital.

Abscess of liver and Jaundice	male	1
Enteric fever and Erysipelas, admitted moribund,	female	1
Insect bite, blood poisoning, Erysipelas, abortion	..	1
Rheumatic Arthritis, abscess in liver, dropsy	male	1
Peritonitis	..	1

Among 65 patients - deaths... 5

Statistics of Nationality and Religion of Patients.

British			
English	32	D. Reformed Church	52
Scotch	11	English Church	42
Irish	11	Roman Catholic ..	35
Welsh	2	Lutheran ..	18
South African : -		Presbyterian ..	12
Cape Colony	33	Free Church, Scotch	2
Transvaal	16	Wesleyan . .	8
O.V.State	4	Congregational Church	1
Natal	1	Baptist ..	2
Griqualand	1	Jewish ..	5
Holland	27	Free Thinker	1
Germany	13	Unknown	1
Switzerland	5	Total	179.
Belgium	4		
East Indies	3		
Sweden	2		
Russia	2		
Italy	2		
U. S. America	2		
Australia	2		
Mauritius	1		
Bavaria	1		
France	1		
Spain	1		
Canada	1		
India	1		

(COPY and TRANSLATION from the Dutch.)

General Report of Volkshospital

For the Year 1894

Doctor in Charge : Dr. J. B. Knobel.

We began the year with 14 White and 4 Coloured Patients. During 1894 there were admitted 217 white men, 31 white women, 63 coloured men, 4 ditto women, making a total of 314 admissions, as against 265 of the previous year, and bringing up the total admissions into the two hospitals to 1142 whites and 152 natives.

Although the total admissions were increased by 49, the death rate was only increased by 1, 29 having died in the two hospitals, including 6 who were admitted in a dying condition.

Fractures and other accidents still preponderate among the natives, 20 of the latter coming in as against 27 total whites.

Among the diseases there has been no special outbreak in the hospital, although the town and surrounding country have suffered from Small-pox and Scarlet fever to a considerable degree.

One private paying patient, who was admitted for disease of the bowels, developed small-pox several days after his admission, and was removed to the Town Lazaretto as soon as possible. Proper precautions were taken and no further infection either amongst patients, nurses, or servants followed. So also, one kaffir broke out with measles several days after admission, but the disease did

- not -

did not spread, and no other infectious diseases occured.

Of the general diseases Malaria has, as in former years, been responsible for the largest number of patients, there being 35 whites and 3 blacks, as against 53 and 2 respectively of the former year.

Dysentery has however, increased, the line of Railway works towards Delagoa Bay being the origion of a good deal of it, there were 15 patients as against 7 in last year.

Enteric fever has not much increased, the proportion being 19 to 17 of last year. Its prevailance in Pretoria has, however, steadily decreased since 1892. The outbreak began in 1891 with 23 patients in a total of 168; in 1892 we had 31 among a total of 211 patients; in 1893 only 17 among 287; and now 19 amongst 314 patients. The totals just given also show the progressive increase in the total number of patients treated per year, shewing extra work and time required in the management of the hospital.

Pneumonia was not severe, there being 6 whites and 6 natives only, and of Rheumatic fever only 6 whites and 1 native as against 13 whites in last year.

The war with the Kaffir Chief Malaboch sent several patients to hospital, 3 among them syffering from bullet-wounds.

Abuse of Alcohol still ranks high as a causation of disease, and besides the diseases indirectly produced by it, there were 13 white males and 1 woman sent in suffering directly from the effects of it, 10 of them having Alcoholic delerium.

The remaining diseases are of the same diversified order as in former years, and the nationalities of the patients still show the usual cosmopolitan nature of this Institution.

- One point -

One point will have to be considered by the Committee, i.e. the tendency for this Hospital to be used as a Poor-house, by the admission of poor, and chronically diseased patients, who cannot again be got rid of, there being no other Institution in this State to receive such, for example the blind, paralysed, epileptic, &c., of whom we have now specimens among the free patients.

Annexed is the Official Report on the Government forms, giving the details were are summarised above.

(The Official Report referred to has been torn away and is lost along with the Reports of the remaining years.) J.B.K.