Zulu medicine and medicine-men / by Alfred T. Bryant.

ZULU MEDICINE AND MEDICINE MEN.

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Zulu Medicine and Medicine-men.

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(1) Introduction.

Although the Zulu native is sadly lacking in the equipment requisite for the civilised life, he is quite astonishingly learned in the domain of his own environment. It is by no means an exaggeration to affirm that comparatively the average Zulu can boast of a larger share of pure scientific knowledge than the average European.

I suppose, if it were possible for us to go back to the dawn of human intellect and to measure how much of intelligent thought has been expended on each of the several branches of mundane knowledge, we should find that probably by far the greater part has been spent on the subject of medical science.

From the origin of primitive man on to the time when the art of writing was invented marks one period in the history of medical knowledge—the first dark period of unwritten progress. And from the days when Imhotpou, son of Ptah, first wrote "soon after the creation" at Memphis, and Hippocrates at Cos, on to these times of modern medicine marks another, in which we still find ourselves. With this latter period I am not here concerned, but I should like to glance into that great book of unwritten lore, such as may have existed among aboriginal peoples prior to the dawn of

literary enlightenment in Egypt and Greece. True, that was an unwritten book; but it existed all the same, writ large in the traditions and practice of those peoples. Has it even now ceased to exist? Or may we not find fragments of the ancient lore still extant among the primitive races of mankind, wherewith to reconstruct in some degree the ancient pages?

The Kafirs of South Africa, upon the arrival of the white man among them, were, I am convinced, in virtually the same state of life and knowledge as they must have been in the days when the ancient Egyptians first appeared on the Nile. This was a state of life so primitive of its kind that it scarcely permitted any further reduction to a simpler standard, at any rate for anything calling itself a human being.

The Kafir's dwelling, merely a rough binding-together of twigs and grass, marked only one step in advance of the cave-dwellers. His single weapon, an indifferently made stabbing-instrument, consisting of a crude iron blade affixed to the end of a stick, indicated only the first emergence from the Stone Age. His dress, of a single strip of skin covering the pudenda, with absolutely no knowledge of any kind of cloth, was the simplest advance on the fig-leaf.

His acquaintance with only two, or at most three, species of edible cereal (*amaBele* or Sorghum cafrorum, *uNyawoti* or ? Penicillaria spicata, and *uPoko* or Eleusine coracana—the maize-plant having been introduced in comparatively recent times by the Portuguese), with not more than half-a-dozen varieties of other cultivated vegetable food, and all prepared for eating by the merest process of water-boiling, exhibited a culinary art of the most rudimentary description. His pottery was almost identical with that in vogue in north Africa in the very earliest period of Egyptian history.

This is how we found him two centuries back, and how, for the most part, he still remains. Have we any reason to believe he was more advanced than this 6000 years ago—he could scarcely have been less? There seems every reason to believe that he was just where he is. Why, then, should we suppose that he has made any considerable progress in his

knowledge and treatment of disease? A study of these latter as existent to-day will no doubt present us with a very fair picture of how they must have been before Imhotpou and Æsculapius became gods.

(2) The General Status and Initiation of the Medicine-Man.

Compared with the sleek and imposing personality of the chief the medicine-man presents quite a mean appearance, though picturesque and awesome withal. Along with the chief he shares the greatest power in the savage tribe—not, it is true, the power of supreme authority, but a power over life and death not less effective and real, though hidden and mysterious. His well-wrinkled features bear the unmistakable stamp of a thinking mind, and his intelligent eye has that flash of deep cunning so well suited to one who has so often been the accomplice, behind the scenes, to sinister deeds. His lean, wiry frame betokens a life of toilsome, if well-rewarded, activity rather than of luxury and repose—an activity consisting mainly in constant arduous journeyings throughout the land, and frequently even into the foreign lands of adjoining tribes.

Out in the full panoply of a professional progress, his body is betrimmed with a medley of the most fantastic trappings. A plume of feathers waves above his head-ring, and a circlet of lion-claws surrounds his neck. Various cow-tails dangle from his arms and chest, supplementing the square strip of leopard-skin and the bundle of genet-tails that cover his nakedness behind and before. Numerous bunches of goat-horns, blackened with the smoke of his hut, and sundry small grass-woven baskets and bundles of rag-packages, brown with dirt, containing his strange assortment of drugs and charms, are strung from every point of vantage about neck, shoulders and body. A long pouch, holding his snuff-box, and made from the whole skin of an unborn calf, dangles from his left

hand, and in the other he carries his long walking-staff or a couple of stout sticks.

Thus, silently followed by his menial, bearing on his head his master's roll of sleeping-mats, blanket, smoke-horn and head-rest, the Zulu medicine-man goes forth to conquer death —or to administer it.

The high dignity and diploma of medicine-man is open to all who may have the wealth and inclination to seek it. Lack of ambition and individual initiative is a chief characteristic of the African nature, and accounts for the utter absence of young men launching out on independent projects of their own. But should one perchance be so precocious as to aspire to the medicine-man's estate, he must first of all undergo a long period of initiation. He enters the service of some doctor of repute as his *imPakatha* or assistant. His business is to act as the messenger, the herb-gatherer and general help of his master in professional matters, accompanying him on all his excursions as medicine-bearer, and picking up by observation and instruction whatever of knowledge and skill he can. In an irregular way this kind of study may continue for years, until at length the tyro feels that he is capable of dealing with a good many ailments on his own account, pays his master the required fee of two or three head of cattle, and betakes himself to his own home, where he soon surrounds himself with a comfortable practice. He constantly adds to his store of knowledge by consultation and the mutual exchange of remedies with neighbouring doctors, until, after perhaps twenty years or more, he has picked up all there is worth knowing in the Kafir pharmacopœia and Kafir pathology.

But all this is the rare and exceptional course. As a matter of fact, the medical profession is with the Zulus hereditary, one of the medicine-man's sons being compulsorily introduced by him into the trade, as his assistant, during life, and inheriting his legacy of bags and bundles of medicine after his death.

(3) Origin of the Zulu Name *i-nyanga*—Medicine-man.

The Kafirs call their medicine man, in Zulu, an *i-nyanga*, and in Xosa, an *i-nyangi* (although in the latter language a totally different term, viz. *i-gqira*, is in more common use nowadays, probably derived from the Hottentot :- c f. Nama-Hot. *gqeira*, pertaining to witchery, from *gqei-di*, bewitch, from *gqei*, belch. Note here the universal habit among witch-doctors, Zulu included, of inaugurating their spiritualistic seances with an inevitable prelude of belching).

Whether or not there may be any kinship between the Kafir roots indicated above and the constantly recurring element, *ag*, *ga*, or *gi* in the Aryan languages, e. g. Skr. *gir*, speech ; Pers. *mag*, priest ; Gr. *magos*, wizard ; L. *augur*, soothsayer ; *gar-rire*, chatter ; Eng. *mag*, chatter, and the like, I leave to the philologists to decide. Certainly a remarkably similar element, viz. *anga*, in the sense of "wizard" or "medicine-man" is very prevalent in the present-day vocabulary of the nasalising Bantu tribes of Africa, and was no doubt equally so in the archaic speech of pre-Egyptian times.

Thus we find *m-ganga* (doctor) in the Swahili opposite Zanzibar, and the same in Kaguru of Sagaraland. The Nyamnyam, of the Nuba-Fula group, have *n-zanga* (doctor) and *wu-wanga* (medicine).[1] Passing to the Hausa, of the Negro group, between Lake Tshad and the Niger, we have *magani* (medicine) and *maimagani* (doctor). In the Dualla of the Cameroons, *bw-anga* means "medicine" ; and in the Pongwe or Gaboon language *u-ganga* appears as "doctor." Moving southward along the western coast, we meet with *n-ganga* (doctor) both in the Congo and Angola speech. Still southward of these, at the south-western extremity of the Bantu field, the Herero has *on-ganga* (doctor). Returning across the continent, we find *n-gaka* (doctor) among the

[1] In regard to some of the examples here given, the writer is not prepared to vouch for the absolute accuracy of the division, as here indicated, of the prefixes from their roots.

Sutos; *in-ganga* (doctor) in Mashonaland; the same again among the Tongas seaward of the Victoria Falls; and we complete the circuit with *un-ganga* (doctor) among the Nkonde north of Lake Nyasa.

(4) The Medicine-man and Witch-doctor Compared.

Among most primitive peoples the medicine-man, the priest and the diviner was, and still generally is, one and the same individual, following the one indivisible trade. All powers and functions that possessed about them anything of the mysterious and uncanny, whether they were employed to eradicate disease or to reveal hidden doings, to bestow good fortune or to charm away the bad, were to the savage mind so identical in their nature as to be most properly combined in the same profession and same professional—they were but varied manifestations of the one same power.

The African medicine-man (so called by Europeans), may therefore very possibly be the direct descendant of the aboriginal "priest" who worked at once moon, medicine and magic. With the Kafirs, however, both Zulu and Xosa, the office has, throughout all historical time (i. e. at any rate since the advent of the white man) been divided.

The Zulu medicine-man is a personage totally distinct from the Zulu diviner or so-called witch-doctor. Even so, the two professions do still considerably overlap, the medical man dealing very largely in magic and charms, and conversely the witch-doctor possessing an extensive acquaintance with disease and curative herbs, although his office is rather to indicate than to actually administer. Both are commonly called an *i-nyanga*, though the medicine-man is sometimes distinguished as the *i-nyanga yokwelapha* (the doctor for curing), and the witch-doctor as the *i-nyanga yokubhula* (the doctor for divining).

This latter has the further titles, solely confined to his own class, of *um-ngoma* (apparently originally meaning "the drumming-one"—c f. Swahili, Ganda, etc., *m-goma*, drum;

Kikuyu, *n-goma*, temporary madness), and *isa-nusi* (the smeller-out—probably from a now obsolete Zulu word *nukisa*, abbrev. form *nusa* meaning to "help to smell out"), and so called from their practices respectively of drumming or beating on a hide, or perhaps originally on a drum, during certain ceremonies, and of "smelling out" all manner of secret evil and the workers thereof.

(5) The Nature of Native Medical Practice.

If we examine the Kafir doctor's pathological knowledge we find it mostly amounts to *nil*. His entire acquaintance with the structure of the human body is drawn from its analogy with the anatomy of the beasts, with whose bodily structure he is, indeed, remarkably familiar. You could put to him few questions as to the placing of the bones and the various organs in the body of an ox, pig, or monkey that would considerably embarrass him. He could tell you something, at any rate, about the form and appearance in health and disease of the respiratory, digestive, and circulatory organs; but the whole nervous system, save the bare existence of the brain and spinal cord, is to him a perfect blank. He possesses no name for nerves and knows naught of their existence. A similar state of ignorance reigns throughout the whole domain of physiology. He could not even give a school-boy explanation of the functions of any one of the principal organs. He knows that the blood "runs" through the body, but he is not aware of any connection between the circulation of the blood and the beating of the heart.

Despite the fact that the Kafir doctor is so uninformed as to the causes and nature of diseases, he is conversant enough with their symptoms. Indeed, to him the symptoms are the disease, and the great rule of his pathology is: As many symptoms, so many diseases. A person might be suffering with an unhealthy liver and so be afflicted with pain in the right shoulder. The latter would be regarded as a separate complaint and called *isiBhobo*, while the former (or liver symptoms)

would be called *isiBindi*. In a case of paraplegia you may find the doctor vigorously carving rows of incisions about the paralysed lower limbs and rubbing therein fiercely irritating powders, which might well be expected to stimulate any cripple to almost superhuman activity; but he is all the time quite innocent of the fact that the evil is not there at all, but away at the other end, in the brain.

The method of the native doctor, then, in fighting disease is to deliver a fierce frontal attack against each symptom individually, which, as we may readily imagine, to one so innocent of the nature, strength, and position of the enemy, must often result disastrously. A patient down with severe dysentery, that will tolerate no checking, he will proceed to drench at once from above and below with a combination of the most drastic astringents varied with a dose of the most drastic purgatives.

In spite of such blind empiricism it cannot be denied that the native doctor does sometimes work a cure, sometimes quite a startling cure, where the efforts of European physicians have proved utterly unavailing. Remedies he has, as we shall see, without number, and some of them truly helpful, suited to every ill—physical, mental, moral and social—that man is heir to. Frequently it is to these we may attribute his success; but not so in those phenomenal cases above referred to.

In the opinion of the writer the secret of many Kafir cures, and, it may be added, of many Kafir ailments, is not in the action of matter on matter, of drug on flesh, but in those occult regions where mind works on mind and mind on flesh.

It is not the quack's innocent mixture of tap-water and burnt sugar that drives out the malady, but that powerful battery of mental forces—confidence, imagination and will—hitherto inert within the patient's own self, and which the quack has so cunningly, and in the case of Kafir doctors, perhaps quite unconsciously, excited to activity by his convincing volubility and inspiriting methods. We often say the native is favoured with remarkable recuperative powers. Are these attributable solely to a more robust physical system,

and not rather, and in a very large degree, to his possession of a mind working in more perfect harmony with the requirements of the body?

A native cannot understand disease in any plant or animal as being in accordance with the natural order of its destiny. The only manner of death that is at all comprehensible to him is that of senile decay—when a thing has run its allotted course and expended its powers and sinks serenely back once more into the lap of Mother Earth. Of the aged who pass away in this "natural" way the native never says that "they have died" (*ba-file*), but simply "they have gone home" (*ba-godukile*). Where is the reasonableness in a thing withering away in the very prime of its existence? Obviously this can only be brought about by some pernicious influence interfering from without. He has fixed on only two such external agents of harm—malice and magic—as best suggesting themselves to his own innate suspiciousness of character. He is convinced that fully 90 per cent. of those who die "prematurely" have been done away with by the malice of their neighbours. Generally speaking, the only form of contractible disease for which an *umThakathi*[1] is not held to be responsible is that heterogeneous agglomeration of ailments which he combines under the generic term *umKhuhlane*, which may be roughly described as "fevers," and which he is satisfied are somehow conveyed through the medium of the air.

The result of all this is to produce a medical science very unlike our own. The Kafir doctor is not only called upon to combat diseases already actually in the system, but he has also to combat the machinations and black arts of the *venefici* of his race by charms and counter-magic. As we elsewhere observe, medicine and magic among primitive peoples always proceed together. They are one science, one art; and to the primitive mind both are equally feasible, equally natural. In their view it makes no greater demand on reason to believe that a piece of vegetable root tied round the neck

[1] *umThakathi* describes in Zulu a person given to the secret killing off of others.

can preserve a man from impending evil (say of getting wounded in battle), than that it can save him from its effects after it has actually befallen him. In fact the accomplishment of the former feat would appear to involve less difficulty than the latter. It is obviously just as reasonable to expect Nature to have provided antidotes against the secret malpractices of brother-man as against the mischief worked in human beings by those much more abstruse forces causing disease and death. The office of the medicine-man thus requires him to administer magic and charms as often as health-giving drugs. He would stand aghast at the magnitude of your ignorance if you were bold enough to ridicule his ability to confound the knavery of the *umThakathi* by plentifully sprinkling *inTelezi*-medicine about the kraal, or to ward off the lightning by erecting a medicated stone in its vicinity.

But while he assumes the power of being able to ward off and fortify against all manner of possible corporal and physical evils, he knows too how to induce them; and the proneness of human nature to work evil, especially for gain, being well recognised by the Kafirs, the most skilled medicine-man is with them invariably suspected of being also the greatest *umThakathi*.

(6) The Native Medicines.

Crawling into the doctor's hut we may find him in the act of making up a prescription, for he is his own chemist. Squatting alone on the floor on the right side of the hut, a vast array of small objects, of all shapes, all colours, all characters, lies spread out in an orderly fashion before and about him. From time to time, after a thoughtful survey, he picks up one or other of the curious objects, pares off a few tiny slices, or drops a few particles on to the rag-patch outstretched before him, until a small heap has been accumulated, perhaps half a tea-spoonful or so, sufficient for one or more doses according to the strength of the ingredients.

There are baked insects and dried reptiles; the dung of lions in powders and the fat of the water-sprite in bottles; the shrivelled flesh of the white man and the hardened menses of the baboon; an incongruous assortment of oddities—Spanish-fly powder, asbestos, glass prisms, washing-soda, flint, spa, crystal, coral, rare geological specimens of every description; skins and bones of every conceivable animal, and hundreds of barks, roots, berries and leaves—in a word, choice selections innumerable and wonderful, medicinal and magical, useful, harmful, and inert, from the whole range of mineral, vegetable, and animal kingdoms, terrestrial and marine.

There are *amaKhubalo*, to be eaten for self-fortification against evil; and *imiKhando*, to be set for destroying the power in others. There are *imBhulelo*, to be laid on the enemy's path, that, in passing, a fatal disease may befall him; and *izinTelezi*, for sprinkling about the kraal to ward off the lightning or discomfit the *umThakathi* in his impious endeavours; *izimPundu*, for confusing him when in the act, and *izinGqunda*, for "taking the edge off" the act when accomplished.

There are *imiThi emnyama*, "black medicines," so called from their colour or the colour of their decoction, generally drastic in their nature, and, from their potency, the first to be administered to the patient for the energetic expulsion of the evil afflicting him.

There are *imiThi emhlophe*, "white medicines," also so called from their colour, to be administered subsequently to the black, as a kind of tonic or sedative, to work off the effects of the latter and to restore the patient once more to a state of complete healthfulness.

And there are *amaKhambhi*, "green medicines"—herbs and roots freshly culled from the veld—the largest and most useful class of all.

I have actually registered, in the pages of my Zulu-English Dictionary, some 777 different plants, and in the case of 225 of these (apart from the charms) some medicinal use or

property is indicated. A valuable and exhaustive account of about 150 South African medicinal plants, as used by the Xosa and Fingo Kafirs in the Cape Colony, has already been supplied by Mr. Andrew Smith, M.A., in his book entitled 'A Contribution to South African Materia Medica,' and the names of 240 other such, mentioned in this article as in use among the Zulus, will indicate to medical botanists where their future investigations might be most profitably pursued.

It is a curious thing that so many of our health-giving plants, should, at the same time, be capable of killing, and the Kafir pharmacopœia is as abundant in such poisons as is our own. For the benefit of such as desire to be warned, I should say all of the following should be labelled at any rate as dangerous, many of them being most certainly fatally poisonous, and that, with some constitutions, even in minute quantities. It must be recollected, however, that every part of a plant is not always equally poisonous; that the noxious properties are not at all seasons equally great, and that they may at times be completely removed or neutralised by the method of medicinal preparation. There are the *uQwengu* or (*N*)[1] *iLozane* (Tephrosia macropoda and T. diffusa), *iNcohiba* (Gomphocarpus sp.), *imFulwa* (Ophiocaulon gummifera), *imPila* (Callilepsis laureola), *uMahedeni* (Phytolacca abyssinica), *inGcolo, inGcino* (Scilla rigidifolia), *iLabatheka* (Hypoxis latifolia), *inKomfe* (Hypoxis sp.), *umZilanyoni* bush or (*N*) *uMinya, uMalusi, inTlungunyembhe* (Acocanthera thunbergii), the graminaceous *inDlolothi, umDlandlasi, uLovwane, uNtlangothi, amaNgwe, umDlebe* (Synadenium arborescens), *inKwa* (Dioscorea rupicola),[2] *uDlutshana* (Aster asper), *iDungamuzi* or

[1] The sign (*N*) indicates a Natal name, as distinct from that in use in Zululand.

[2] This plant belongs botanically to the yam group. Though its large tubers are said to cause a roving madness if eaten raw, the Zulus have discovered that, when boiled, they furnish quite a harmless food in times of famine.

(*N*) *isiZimane* (Euclea natalensis), *umHlatholana* (Turræa obtusifolia), *umKhuhlu* (Trichilia emetica), *iHlulelemambha*, *uGobandhlovu* (Secamone gerrardi), *u-Qhume* (Hippobromus alatus), *uSukumbhili* (Hypericum æthiopicum), *uSolo* or Flat-crown (Albizzia fastigiata), *uThangazana* (Cucumis hirsutus), *uMahlabekufeni* (Croton gratissimum), *umZilanyoni* (Croton sylvaticum), *isi-Ndiyandiya* (Bersama lucens), and many others.

(7) The Preparation of Medicines and General Treatment.

Native methods of preparing medicines are much like our own, though, of course, accomplished in a much cruder manner. There are cold infusions (*isiChonco*), made by pouring a requisite amount of cold water upon a certain quantity of pounded or chopped herb, bark or root; hot infusions (*imFudumezelo*), prepared like tea, wherein the medicine is steeped in hot or boiling water; decoctions (*imPeko*), in which it, as a rule, is slightly simmered, though also sometimes thoroughly boiled; and powders, in which the remedy is air-dried or roasted on a pan and subsequently pulverised, or is even burnt to ashes.

The methods of treatment are likewise, in a similarly rude manner, akin to our own. The natives are strong advocates of blood-letting, and they have their way of cupping, in which a hollow cow's horn is held firmly over incisions cut in the flesh, and a vacuum is created by another person withdrawing the internal air by the mouth and so allowing the blood to flow.

They use poultices made of bruised vegetable substances and applied warm or cold; and lotions, in which the liquid extract of the medicine is used for dropping into or pouring upon the affected part.

They have vegetable, animal and earthy ointments, consisting of clays, ashes and bruised pastes, to be smeared on the body.

One of their commonest modes of curing local pains is by rubbing powdered medicine into incisions made on the spot.

They have their vapour-baths, in which the patient, crouching over a boiling pot, is enclosed, along with the latter, within the ample embrace of a large skin or blanket; and their sweating-baths, similarly administered; or else a roomy pit, with a narrow entrance-hole, is dug in the earth, a large fire lighted therein, and the ashes having been extracted, the patient is required to enter and enjoy a rude kind of Turkish bath, the entrance-hole being lightly covered with a blanket or hide to keep out the cold air and keep in the warm.

The clyster and emetic are special favourites with all natives. I suppose they resort to this means of treatment more than to any other, even than to actual dosing. Practically all those common attacks of passing indisposition to which one is periodically liable, as well as most of the more important febrile complaints, are ascribed by them to the bile (*iNyongo*), and their first step is to clear the excess of this fluid out of the system by one or other, or both, of the above methods.

(8) Physical and Constitutional Traits of the Native.

The Zulu in his native state is one of the finest physical types of mankind. Both height and chest measurements are, I believe, above the average of most European races. A feature typical of the pure Zulu is the massive thigh and calf, and the great development of these parts is no doubt largely due to the amount of foot-exercise he is accustomed to do. The wrist is another exceptionally strong part of his anatomy, due to his propensity for stick-fencing and fighting. In the women, besides an extraordinary breadth of hip, we notice a strength and size of neck quite abnormal to their sex, and caused by their having habituated themselves from early childhood to carrying heavy weights upon the head.

Anterior to the white man's invasion, there is reason to

believe that the Zulu race was singularly long-lived and free from disease, but endemic and epidemic fevers, especially malaria and dysentery, were periodically prevalent, and demanded a heavy toll at every outbreak, owing to the intimate social habits of the natives. These it was that he regarded as pre-eminently the natural diseases, not caused by human malice or magic; and he grouped them all indiscriminately together under the one generic name *umKhuhlane*. Whether typhus and typhoid existed is problematical, as even now, among the country Kafirs, they are seldom, if ever, met with. Constitutional and organic diseases—consumption, rheumatism, kidney, bladder and uterine complaints—were all there prior to the advent of the European; but they were markedly rarer than with us, and on account of this rarity were unnamed and only hazily recognised, and were attributed, not to natural causes, but solely to malicious and magical origin. Leprosy and the venereal diseases were absolutely unknown, and so were probably also scarlatina and whooping-cough, while smallpox, from the absence of pock-marked faces, must have been extremely uncommon,[1] notwithstanding that pock-marked features are quite remarkably numerous among the neighbouring Tonga tribes to the northward—tribes for several centuries in close contact with Arabs and Portuguese.

Under the altered conditions of the present day, when the native is removed from the open air of the veld into the vitiated atmosphere and congested dwellings of European towns, this immunity from disease bids fair to cease.

The black races would appear to be unusually susceptible to new diseases, though hardened enough to the old. Yet at the same time they possess a larger share than we of animal vitality and recuperative energy. But whether these innate powers of resistance will prove stronger than the enemy attacking them remains for longer experience to show.

[1] The epidemic of small-pox during Mpande's reign was regarded by the natives as quite an unprecedented event.

(9) Treatment of Diseases.

Scrofula.

There was, however, one ailment—rather a constitutional taint than specific disease—which was from the beginning, and still is, particularly rife among them, presenting, I suppose, their national physical weakness. It is scrofula, called by them *umZimbh'omubi* (bad flesh) or *umChoboko* (the breaking-up or breaking-out disease). It is hereditary, and there are few families without it. It may have originated in the tribe by something harmful in their mode of life, perhaps chronic stomach derangement owing to improper and indigestible food, less probably impure air or want of exercise. It is, perhaps, the explanation of their extreme impressibleness to the infection of new diseases, as well as of the strange fact that, despite their robustness of nature, they are nevertheless much more frequently down with indisposition than the European.

It shows itself in the usual glandular swellings, erratic tumours, periodical outbreaks of refractory sores, impotency, tendency to persistent, though apparently not very harmful, chest complaints, peculiar and indefinite internal disorders. It follows the orthodox rule of scrofula, in that it is mostly to be looked for at once among the extremely dense-headed and the precociously intelligent; among the coarse-featured, wrinkle-faced, generally deep-black, and most repulsively ugly of the Zulu people, and among those of markedly delicate, finely-formed features, generally of a fair complexion, the beautiful of their race. It is as prevalent in the royal family as among the poorer classes of Zululand. I believe the disease is gradually being eradicated, probably owing to better food, among the younger generations in Natal.

It is possible that the disposition to extreme obesity in the Zulu royal house is in some way attributable to this blood-taint. Both Mkungo, still living, and his father, King Mpande, are, or were, so hugely fat as to be utterly incapable of walking or even of leaving their hut or chair.

A constant warfare is kept up against the universal enemy. It is treated rather domestically than professionally. Abundant herbal remedies are in use, all commonly known to the fathers and mothers of families. The plan is to administer an *imBhiza* or combined decoction of several blood-purifying drugs. Take the roots of the bitter herbs *iThethe* (Polygala oppositifolia)[1] and *uMathanjana* (? Raphionacme sp.), of each a small bunch, such as can be easily grasped by the single hand; the bulbous roots of the *umDuze* (Natal lily) and *uMathunga* (Cyrtanthus obliquus); the bark of a foot's length of the stout root of the *umNungwane* (Knobwood, Xanthoxylon capense), *iQwaningi* (Capparis corymbifera), *umHlambhamanzi* (Rauwolfia natalensis), and *isiZimane* (the *iDungamuzi* of Zululand, Euclea natalensis). Break up the ingredients by chopping or pounding, and boil all together for a few minutes in a small quantity of water. When cool, take a dessert or table-spoonful of the decoction once every morning and evening until relieved. The relief will come, in that the impurities in the blood will be expelled chiefly through the skin and also through the secretions. Immediately before the treatment the body is stimulated to healthy activity by the patient, completely enshrouded in a large blanket, sitting bent over the boiling decoction-pot, and this induces a profuse perspiration. As a result of the medicine, tumours, quickly going on to suppuration, form in any part of the body; or, should they have been present already, will now rapidly be brought to a head. This latter can also be accelerated by the poulticing of the

[1] It must be remembered that this article is intended to be simply an ethnological study of the Zulu people from the medical standpoint. The methods of treating disease here described are not thereby recommended for adoption by European persons. However, the medical plants enumerated, some of which are undoubtedly good, others as certainly poisonous, are seriously offered to progressive medical science for analysis and perhaps even cautious experimental application. Grateful recognition is here due to J. Medley Wood, Esq., F.L.S., Director of the Botanical Gardens, Durban, for the very generous assistance given in the identification of most of the indigenous plants herein referred to.

swellings with *iYoli* (Stramonium) leaves. The leaves of the *umThombho* (Cissampelos torulosa) runner are used for the same purpose. From time to time a clyster, consisting of one large cupful of the decoction, may be administered.

Though other plants are used in the Cape Colony—the *umBangandlala*, or, as there called, *umBangandlela* (Heteromorpha arborescens), for instance—the method of treatment of the Xosa doctors is almost identical with that above given, and the effect of their remedies, though the plants are different, is said to be the same. Of the plants used by the Zulus, the *iThethe*,[1] *uMathanjana*, *uMathunga*, are probably really good medicines. Others, like the *isiZimane*, are to be used cautiously, as probably powerfully poisonous. The *iThondo* climber is also used for the relief of the chest symptoms of scrofula, and the *imFuzane* herb for those of the stomach.

Intestinal Parasites.

Ikhambhi.

There is a complaint comparatively common among the Kafirs of these parts which seems to be unknown to medical science. It appears to be caused by an intestinal parasite called by the Zulus *iKhambhi* (sometimes *iQhotho* or *iBhungane*). This is an imago of a beetle measuring from a quarter to half an inch in length, with greenish-black elytra. The beetle is almost identical in appearance with the dung-beetle found in fresh cow-dung.

Specimens of the beetle were obtained by me in June, 1903, at first hand from a sick native girl in my charge in Zululand, who had been passing them periodically in as many as a dozen or more at a single evacuation throughout a period of ten years or more. The specimens were submitted to Dr. Warren, Director of the Natal Museum at Maritzburg, and they were passed on by him to Dr. L. Peringuey, the well-known

[1] An allied plant of the same genus as the *iThethe*, viz. the Polygala senega, has a place in the British Pharmacopœia as a valuable stimulating expectorant for chronic chest ailments.

coleopterist at Cape Town. All the information that these gentlemen could impart was that the insects appeared to be a species of an ordinary dung-beetle (Aphodius marginicollis *Har.*).

An old Zulu doctor declared to me that he was well acquainted with three different varieties or species of the human parasite: one, the commoner greenish-black; another, which he called "white" from its having a white mark on the back; and a third of a dark brown colour, with faintly defined spots about the thorax and sides.

The symptoms, as far as my experience goes, seem to be of the nature of intense nervous irritation, similar to that sometimes attributed to worms—gnawing pains, fits and, as the natives assert, and, I think, with some probability, also madness.

The natives attach to these parasites many fanciful ideas; for instance, after the expulsion of the beetles from the bowels they must be immediately killed lest they take to flight, in which case dire calamity would result, their host following suit, himself "flying" about the veld and hills mad.

The strangest circumstance connected with the *iKhambhi* is the assertion, universally made by the natives, that it exists alive in the imago condition in the host. One could understand the larvæ of a beetle existing in the human intestine, just as the larvæ of certain flies have been occasionally found, but for the whole metamorphosis to take place in the intestine requires strong evidence in order to be believed.

In weighing the evidence it should be remembered that it is an indispensable formality in the treatment of the *iKhambhi* that the stools be passed, never on the grass or in the bush, but only either into a broken pot or upon a specially cleared gravelly space, for it is imperative on the patient that he immediately kill the beetle on expulsion. If it is preferred to regard the native story as a delusion it is difficult to explain why the beetles are only found after certain specifics have been administered to the sick person.

It was desired that the larvæ of the beetle might be found;

and certain living grubs, passed by the Zulu girl above-mentioned, were sent to Dr. Warren for identification, in the hope that they might prove to be such. The grubs, however, were those of a fly (Sarcophaga sp.), and the beetle-grub is still to be found.

The native not only affirms the presence of these beetles in the human intestines, but he is also well provided with remedies for their expulsion, and can invariably produce them for your satisfaction by the administration of those remedies. Generally a mixture of several herbs is made, each bringing its own quota of effectiveness. The roots of the familiar tambootie-grass or *isiQunga* (Andropogon marginatus), of the *inKomfe enkula* (Hypoxis sp.), and of the shrub *umKhwangu was'entabeni*, together with the leaves of the *umNukambhiba* (Clausena inæqualis), of the *umQaqonga* (Clerodendron glabrum), of the *iPhahla* (Brachylæna discolor), of the *umNyamathi* (Ekebergia meyeri), of the *umNungwane* (Xanthoxylon capense), and of the *inKuzwa* bush, a small handful of each, are pounded and infused like tea. A cupful of the infusion is drunk when cool, the dose acting as a parasiticide and purgative. A clyster of the root-bark of the *umDakane* (Apodytes dimidiata) and of the *umNungwane*, together with any of the leaves as above, boiled and administered when slightly warm, one cupful on the first occasion, increased to two or three on a repetition,[1] is also employed with effect, which would seem to indicate that the beetles lodge themselves chiefly in the large intestine. Other remedies are the *umSokosoko* (Ethulia conyzoides) and the *isiThelelo* (Aster erigeroides); of the latter a hot infusion is made with a double handful of the leaves and about two cupfuls of water, to be administered as a clyster.

Most people have read of the popular amulets of the ancient Egyptians called scarabs. I am not aware that it has been in any way finally determined that the myth of the scarab, as

[1] The quantities indicated in this article are such as are administered to a native adult.

it existed in the religion of the ancient Egyptians, was something primarily invented and imported into Africa by them, and was not rather an indigenous superstition appropriated by them from the black races they displaced upon their first arrival on the Nile. If the latter were the case, and the Egyptians adopted the African belief in the human beetle-parasite—but without contracting the disease, and, therefore, ignorant of the exact character of the parasite—we should not be surprised at their transferring the whole myth along with the magic connected with it to the only dung-beetle they knew, viz. the common tumble-dung-beetle of the paths (Scarabæus sacer). The Egyptian name for the scarab was the same as that of one of the four great cosmic gods, viz. Kheper, meaning "he who rolls," "to be," "to come into being"; and there is certainly some philological resemblance between this word and the Zulu word *iKhambhi* for the human parasite.

Egyptologists (see Budge, 'Egyptian Magic,' p. 38) tell us that the beetle was named Kheper on account of its rolling propensities, comparing it with the sun, which rolls day by day across the heavens. Is it not quite as likely that it was so named because of its strange habit of suddenly emerging fully fledged from the bowels of a human being, and without any apparent previous entry therein? It would suggest the thought of "coming into being," of "self-creation."

Round-worms—Ascarids.

The bulbs of the plant *inJobo*, taken even in the raw state, are very effective. I have known two dozen of these worms to be expelled from one adult who had taken two of these bulbous roots, each one and a half inches in diameter. The roots were pounded very finely and boiled in meat broth.

Tape-worm.

Despite our world-wide experience we have been able to bring the native no more powerful expellent of tape-worms

than the extract of male fern (N. filix-mas). Yet the Zulu doctor had in use a number of indigenous species of this Nephrodium (N. filix-mas, N. athamanticum, etc.), generically called by him *iNkomankoma*, as his principal specific for tape-worm from time immemorial. He was probably aware of their vermifugal powers long before we were. Of course his cure, being administered only in the raw state, in the form of the dry and powdered root (a level dessert-spoonful to the dose), proves much less efficient than the concentrated extract of our druggists.

Other native vermifuges are the *uMahlabathi* herb, of whose small roots a handful is thoroughly pounded into a paste and eaten in a cupful of thin Kafir-corn porridge, a full meal of this latter being taken immediately after to assist the action. Others eat raw a good quantity of the leaves or black berries of the *iBhinini* bush (Embelia kraussii). Both of these plants are specifics for tape- and round-worms alike. For the tape-worm alone, besides the above, we have the roots of the *iDololenkonyane* (Rumex ecklonianus), and of the *um-Nukambhiba* (Clausena inæqualis), and the leaves of *uMakhuthula* (Agrimonia eupatoria) shrub, of which a handful are thoroughly pounded and drunk in a little cold water.

Round- and thread-worms are expelled also by the leaves of the *umQaqongo* (Clerodendron glabrum), or by a couple of tablespoonfuls of the ripe berries of the *uMaguqu* (Mæsa sp.) dried and ground. This latter belonging to the same botanical group as the *iBhinini* above, it is probable that this class of plant really has some vermifugal powers.

The *umQalothi* (Strychnos henningsii) and the *uHlam-bhihloshane* (Gerbera kraussii) and the *iNcamu* (Othonna natalensis) are described as worm-cures, but it is just as possible (though not proven) that their action is simply an alleviation of the flatulence and other stomach pains due to indigestion, and erroneously attributed by the natives to worms. Of the *uHlambhihloshane*, about ten leaves are taken, pounded, and mixed with a cupful of water, which is drunk.

The *imPila* (Callilepis laureola) is sometimes used by reckless natives as a vermifuge, a piece of the root, one inch cube, being boiled in a cupful of water and drunk. Inasmuch as this plant has proved fatal to human beings, there seems no reason to doubt its powers on worms, which it would probably first poison and then expel with the purging.

An occasional, though somewhat rare, complaint among the natives is called *inTlumbha*, which seems to be due to tapeworm cysticerci, infesting mostly the back and the region of the knees. The cure is in their extraction by the knife. The term *inTlumbha* is likewise sometimes applied to ophthalmic granulations (perhaps of trachoma), which are said to be "extracted" in a similar fashion.

Stomach and Intestinal Complaints.

I have said that the Kafirs have very hazy ideas, if indeed any at all, about the liver, kidneys, or stomach proper. A large number of abdominal disorders are therefore treated in quite an empirical way on the offchance of effecting some good. For instance, a concoction may be made of a handful of the leaves (a small quantity being taken of each) of the *isiBangamlotha* (Antidesma venosum), the *umNungwane* (Xanthoxylon capense), the *iDlebelendlovu* (Trimeria alnifolia), the *umVuthwamini* (Plectronia ventosa), and the *inKunzi* or *iBheja* (Bopusia scabra), the whole being pounded and steeped in a couple of pints of cold water, of which a large cupful is drunk and the remainder taken as an enema. Or the drastically operating *uDlutshana* (Aster asper), *iXolo* or (N.) *umKhuhlu* (Trichilia emetica), *iDungamuzi* or (N.) *isiZimane* (Euclea natalensis) and the *umHlatholana* (Turræa obtusifolia), may be prepared and administered separately, as elsewhere described. When there is much internal pain in the abdomen, the *isiThelelo* (Aster erigeroides) is prescribed, a double handful of the tiny leaves being infused in a couple of cupfuls of boiling water and injected per rectum.

For indigestion the native has some really valuable medi-

cines that would, I think, be an acquisition to our own pharmacopœia. I believe a scientifically prepared extract of the *uMondi* (Chlorocodon whitei), the *inDawo* (Cyperus esculentus) and the *umHlwazi* tree would be of especial value. All are perfectly harmless plants and not unpleasant to the palate. Every native fortunate enough to procure them habitually carries about with him a supply of one of these drugs. Of the *uMondi* he carries portions of the root and chews the same whenever the digestion may seek relief. The nodulous roots of the *inDawo* and the bark of the *umHlwazi* are nibbled and chewed in the same way. The *inDawo* is especially mentioned as a cure for foul breath. Heartburn is relieved by a decoction of the chopped bark or root of the *umNyamathi* (Ekebergia meyeri), six inches of whose stout root may be simmered in three or four pints of water and taken as an emetic. The roots of the *inTondo* (Argyrolobium marginatum) herb, which are crushed, infused with a cupful of boiling water and a table-spoonful drunk from time to time, have the reputation of being helpful in the case of hiccough arising from stomach disorders. The roots of the *umThente* grass (Imperata arundinacea) are a specific for the same purpose.

A common feature of stomach complaints is nausea. The native does not attempt to seek the cause but uses indiscriminately one or other of several plants. As a fact the nausea would seem to be due to intestinal worms and bile more frequently than to anything else. He may crush the roots of the *iNcamu* (Othonna natalensis) herb, and drink the cold water infusion prepared therefrom. This may be effective, because the plant possesses vermifugal properties. Half an inch square of the bark of the *umQalothi* (Strychnos henningsii) tree, pulverised and drunk in a spoonful of cold water, is used for the like purpose, and seems to act in the same way, having the same vermifugal powers. When, however, the nausea proceeds from biliousness, either the *ubuHlungwana* (Wedelia natalensis), or the *isiNama* (Achyranthes avicularis) cum *uMasigcolo* (Osteospermum nervatum) emetics

may be relied upon to clear the stomach of the bile, if doing nothing else. A decoction or even cold infusion of the fresh runners of the *inTshungu* (Momordica fœtida) or of the *inTshungwana yehlathi* (Momordica involucrata) creeper is reported as being very soothing for a squeamish stomach, as is also the preparation of *inTondo* (Argyrolobium marginatum) tubers described above for hiccough. Should the sick sensation be attributable to nauseating medicine, the *uDonqabathwa* (Ceratotheca triloba) has already been indicated.

For general stomach-ache, oftentimes, no doubt, due to flatulence, we have the *inDawo*, above mentioned, again prescribed. The large, white daisy *uHlambhihloshane* (Gerbera kraussii) finds its usefulness here. Two or three of its large leaves are pounded in a couple of tablespoonfuls of cold water and the whole mixture drunk. Or an infusion in boiling water of a handful of the leaves of the *uNgwáleni* (Cluytia pulchella) herb is taken in the same way. The very bitter *uHlonyane* or *iNyathelo* (Vernonia woodii) is said to possess useful properties as a stomachic. The same remark applies to the *iBoza* (Moschosma riparia) shrub. Of the leaves or roots of the wild *uSelwa* (Luffa sphærica) and of the *uQadolo* (Bidens pilosa) or Blackjack weed a double-handful may be infused with a large cupful of hot water and drunk; or a larger quantity of the herbs in a sufficiency of water may be given as a clyster.

Numerous other plants have a good reputation as remedies for general stomach disorders and bowel pains. Among them we may note the *umNungwane* (Xanthoxylon capense), a foot-length of whose stout root is dug up, the bark thereof simmered in three large cupfuls of water and given as an injection; the *ubuHlungwana* (Wedelia natalensis) as already prescribed—although women in child should avoid it, as this plant is said to bring about abortion; the bark of the *umNono* tree, which is chewed; the pink-flowered *umSokosoko* (Ethulia conyzoides); the iridaceous *inDawoluthi emhlophe* (Belamcanda sp.); the *umDlandlasi* climber; the

bark of the *umGugudo* tree; the thorny weed *inKunzana* (Emex spinosa); and the *umMbhezi* tree, of whose large soft root a piece as large as a child's fist is pounded finely and cooked as porridge, the action being purgative.

The more powerful purgatives as croton oil, jalap and the like are much esteemed by the natives. There are at least two species of Croton indigenous to Natal—Croton gratissimum and C. sylvaticum. Both are called *uMahlabekufeni* by the natives, though the last-named species is more generally known as *umZilanyoni*, i. e. the tree abstained from by birds, owing to its orange-coloured berries being severely avoided by these latter, to whom they are said to be fatally poisonous. The valuable medicinal properties, both as cathartic and as eruptive irritant, of these crotons are well known to the Zulu doctors, affording once again undeniable evidence of the oftentimes accurate knowledge and extensive botanical investigations of these people. When employed as a purgative—generally when severe abdominal disorder of an indefinite nature is present—a piece of the bark, half as large as one's thumb, is pulverised in half a cupful of milk or broth, and the mixture drunk.

The true jalap plant, of course, does not exist in South Africa, but there is an allied indigenous plant possessing similar powers, though, I think, in an inferior degree. This is the Ipomœa purpurea, a convolvulus-like climber common in the coast bush. Certain is it that it had no native name prior to the advent of the white man; but this alone is not sufficient proof that its purging powers were not well known.

At the present time it is one of their favourite remedies, and is universally known as *iJalambhu* or *iJalamu* (a corruption of the English word "jalap.") It is the tuberous root of the Mexican species that is officially used, but of the Natal species it is the stalks, the roots being merely insignificant fibres. Another species of Ipomœa is also used as a purgative for a generally disordered stomach, and its powers seem to about equal those of the former variety. It is the *umKhokha wehlathi* (Ipomœa ficifolia), a double

handful of whose leaves is bruised in cold water and a cupful of the mixture drunk.

All species of the Euclea—the *iDungamuzi* of Zululand, or in Natal *isiZimane* (E. natalensis), the *iDungamuzi* of Natal (male of E. lanceolata), and the *umShekisane* (female of E. lanceolata)—seem to contain very strong cathartic principles, if not, indeed, injuriously so, since they are said to frequently draw blood. The bark is taken from a piece of the two-inch root, six inches long, and infused with, or even slightly simmered in, a couple of milk-tins of water. This liquid, if of the Euclea natalensis, is either drunk, or mixed with more warm water, injected *per rectum*. There is a tendency to vomit the medicine, which, however, is restrained. The effect is that of a powerful cathartic. The preparations from either variety of the E. lanceolata appear to be stronger still, and are never taken by the mouth, but only as enema.

Another drastically purgative veld-herb is the *imPila* (Callilepis laureola), but this seems without any doubt to be a virulent poison. Native doctors invariably mix the *imPila* with other remedies, which, perhaps, tend to neutralise its injurious principle. Half an inch of its root, powdered and infused in half a teacupful of warm water, is said to be incapable of working any harm to an adult. Others take a handful of the leaves, make a hot infusion with two large cupfuls of water, and inject as clyster. Another very strong cathartic, demanding great caution in its use, is the *umHlatholana* (Turræa obtusifolia). A good handful of the bark from the roots or trunk, or of the leaves, is thoroughly pounded and steeped in a pint or so of hot water. A teacupful of this is retained, and the rest, along with sufficient extra warm water, injected as a clyster. The portion set aside is immediately afterwards drunk mixed in warm porridge or gruel, the result being a complete washing out of the bowels. An equally strong purgative is the *imFuzane* herb, half a teaspoonful of whose ground root is mixed in a little gruel and taken gradually in mouthfuls.

The *iXolo* or (N.) *umKhuhlu* (Trichilia emetica) is a tree possessing very powerful medicinal properties, amongst others those of a purgative. A piece of the bark, of the length and breadth of two fingers, is pulverised and mixed into two teacupfuls of hot water as an enema, in which form this drug is usually administered. The *isiThelelo* (Aster erigeroides), with its pinky-white daisy, is also a strong purgative, a double handful of the small leaves being steeped in two cupfuls of boiling water and injected as clyster. The bulb of the *inGuduza* is also used, being chopped up, thoroughly boiled so as to leave a pint of extract, and administered as the previous remedy.

The castor-oil (*umHlakuva*), like the Stramonium (*iYoli*), is one of those valuable plants, growing in wild profusion around every old kraal, of whose medicinal value the natives know nothing. This is strange, since they have discovered the oil itself contained in the castor-oil seeds, and have extracted it from time immemorial as a suppling agent for hides.

Other cathartic plants are the *uMalusi* and *uMankenketha* herbs, the bark of the *uMabilwana* tree, the roots of the pink umbellate *iHlulelemambha*, and those of the blistering *um-Nqandane wezimpisi* or *inDodemnyama* (Royena villosa).

Dysentery and Diarrhœa.

Dysentery (*isiHudo*) and, in a lesser degree, diarrhœa (*ukuHuda, uHudo*) are two predominant diseases among natives. The cause is no doubt found, firstly, in their impure water-supply, in very many localities from stagnant pools and contaminated streams, and, secondly, from their domestic system not permitting sanitary methods of living. Though they are aware of the difference in the symptoms of these two complaints, they do not recognise any essential difference in their nature or treatment. Their sole effort in both cases is to stay the flux. Purgatives and astringents of the most drastic nature are what they mainly rely upon. The *isiZimane*,

the *umHlatholana*, in a word, any of the cathartics above described, might be inflicted on a dysenteric patient.

But what is of more interest to us just here are the restraining remedies they use. Although all the following plants are said to possess the property of effectually allaying the dysenteric symptoms, it does not thereby follow that they are all astringents. One of the native remedies of highest repute for the complaint is the *ubuHlungwana* (Wedelia natalensis). As we shall see later on, this herb is an excellent wound and sore healer, and it is possible that its value in dysentery consists precisely in its powers for healing the dysenteric ulcers within the bowels. It is administered as an enema, a hot infusion being made of a handful of the pounded roots with two cupfuls of water, and injected. The action, again, of the *uZipho* or *iKhambhi leziduli* (Cardiospermum helicacabum) can scarcely be of a binding nature. We shall find that the pungent leaves of this climber are described as highly successful in the curing of syphilitic sores, and their usefulness in dysentery may also be due to their healing properties. A double-handful of the leaves and stalks are pounded, and a hot infusion made with a couple of pints of water, to be injected, when cool, as an enema.

The following are further held in high repute among native doctors: The *umVuthwamini* bush (Plectronia ventosa), a plant probably worth studying. A handful of its leaves are bruised, and kneaded into a cupful of milk, which is gradually drunk in mouthfuls. A lump of the crimson inner-bark of the *uNgazi* tree, about a couple of inches square, and the same quantity of the bark of the *uMaphipha* tree, is ground into powder, and eaten in a little porridge. The bulbous root of the *inTsulwa* herb has also decided binding qualities. An infusion is prepared of the pounded root in a cupful of hot water, and the liquid drunk.

The *inTolwane* (Elephantorhiza burchellii) is another much-esteemed remedy. The outer-bark is removed from a couple of its large and very red roots, and the interior portion pounded and made into a hot infusion with a quart of water,

which, after straining and cooling, is administered as a clyster. The woody carrot-like root of the allied plant *isiKhubabende* (Indigofera sp.) is another favourite. Of this a single red root may be pulverised, after the outer bark has been removed, and boiled along with a handful of ground *uJiba* (an astringent variety of Kafir-corn), the porridge being then eaten.

The young man's philtre *isiKhwa* or *umWelela* is said to do good service in restraining bloody stools, a handful of the small tubers being chopped up, infused in a quart of boiling water and injected. Or, again, the acidulous leaves of the *imFeyesele* or (*N*) *imFeyenkala* (Dissotis incana), so beloved of native children, may be used, a couple of handfuls being thoroughly bruised and a hot infusion made with a quart of water to be administered as an enema; or a slightly boiled decoction of the *isiKelekehlane* (Crassula rubicunda) given in the same way.

Several iridaceous plants, as, for instance, the *umLunge* (Antholyza paniculata), furnish some of the most important native cures for dysentery and diarrhœa, the disc-like portions of the root being generally used.

The common bramble, *iJingijolo* (Rubus rigidus), has the reputation of being a very effective remedy, six inches of the stout root being pounded and boiled in a pint or so of water and injected into the rectum. The leaves of the *uNgwaleni* (Cluytia pulchella) are sometimes made into an infusion, and a couple of dessert-spoonfuls drunk as a dose. A small quantity of the bark of the *umBanda* tree, of the *isiSefo* and of the *umDlavuza* is also ground, mixed with water to taste, and taken in doses of a spoonful at a time.

Other plants frequently recommended are the horny roots of the root-parasites *iHlule* and the *uMafumbhuka*, as well as those of the *iGololenkawu* (Sapindus oblongifolius), the *umGxamu* or *iHluze* (Schotia brachypetala), and the *uDulamuthwa* (Vangueria lasiantha), of the last-named a double handful of the leaves being pounded, mixed with a little cold water and the mixture drunk; or the bark from the roots of the *iNqayi* (Elæodendron velutinum), about a

handful in quantity, may be pounded in a cupful of cold water and drunk, a similar quantity of bark being further infused in two cupfuls of hot water for administration, when cool, as an enema. Many of these remedies are probably simply astringents, from the large amount of tannin they possess; but it is likely that some are not so, and among these one might come across something worth having. But only a thorough analysis and experimentation can prove or disprove this.

Piles (*ukweleka*) are not clearly distinguished by the natives from chronic dysentery, and for them I find the *isiKhwa* is employed, as described above. Also the roots of the *iCimamlilo* (Pentanisia variabilis) and the bark of the *umKhovothi* (Chætachme meyeri or aristata) are used.

Gangrenous rectitis.

A loathsome disease, occasionally met with in Zululand, Natal and Pondoland, and much dreaded by the natives, is the *isiGwebedla* (otherwise called *inGumbhane, umGubhane,* or *uMoya*). It may be, and I think probably is, a form of gangrenous rectitis, although Sir Patrick Manson, in his book on 'Tropical Diseases,' does not mention that disease as existent in these parts, nor do the symptoms of both, as explained by him, exactly coincide.

The course of the South African disease is as follows. It sets in with fever, headache, abdominal pains, generally about the navel, and sometimes vomiting; diarrhœa with blood, or bloody mucus, passed along with or after the stools; subsequently, in some cases, an eruption of small pimples, distributed irregularly about the body, not going on to suppuration, and afterwards dying away, but always a more pronounced eruption of similar pimples about the pudenda (anus, vagina and penis), subsequently suppurating and uniting in one exuding sore surface. There is no itching or pain attached to this eruption, which has been likened to the eruption occurring about the mouth in cases of feverish catarrh. There is loss of appetite, with absolute prostration, so that the patient has not even strength enough to sit up.

The tissue of the rectum becomes rapidly attenuated, disintegrates, and small pieces are expelled with the stools, the latter finally attaining the appearance of boiled arrowroot. Similarly, the tissue at the pudendal orifices corrodes, leaving the orifices considerably enlarged. In females the septum separating the rectum and vagina may be eaten completely through. Sometimes the spine and neck are said to be affected, rendering it impossible to hold the head erect. There is a general haziness of vision, with dizziness of the brain.

The disease seems to be tractable enough when treated in its initial stages; but owing to the absence of pain, or any other alarming symptom, within or about the rectum, at the commencement of the attack, the disease very frequently fails to be recognised until the danger is far advanced. Once the advanced stage is reached, though cures are occasionally accomplished, a fatal result may be anticipated—death occurring, with great abdominal pain (perhaps from peritonitis), accompanied by writhing, though without convulsions, during the second, or, more rarely, the third week.

The disease is apparently infectious, several cases frequently occurring in the same kraal; also epidemic, there being generally many cases at the same time in the same locality; and perhaps endemic, apparently being more common in certain districts. It seems, however, to select no particular period of the year, such as the season of green mealies (suggested by Sir P. Manson, if I recollect aright, in connection with the phagedænic rectitis of America), for one particular outbreak known to the writer occurred at the end of the winter and commencement of spring, when only dry grain foods and sweet potatoes were being partaken of.

In treating this serious disease the medicine-man, conscious of the peril of contagion, commences by fortifying himself against the danger, in that he bathes his body beforehand in a decoction of *umGanu* (Sclerocarya cafra) bark. This performance has the look of a charm rather than of anything else, but before ridiculing, it would be well to recollect that

the fruit of this tree has the reputation of being a potent insecticide (being used in Zululand for the destruction of ticks), and it may be also a germicide. He then administers some of the same decoction to the patient internally; but what is chiefly relied on is the application of certain remedies locally. These consist, as a rule, of the *inKunzi* (otherwise *uGweje* or (N.) *iBheja*—Bopusia scabra)—which seems to be a valuable nostrum for all kinds of intractable sores—the *umBomvane* (Ochna atropurpurea), and the *umPhuphutho* herb. Of these the roots are taken, pounded, simmered, and the decoction, when cool, administered as a clyster or simply as a lotion for bathing the parts. This clyster or bathing is repeated five or six times daily. Another method is to pound the same dried roots into powder and then sprinkle over the sore parts. The result is said to be a rapid healing of the ulcer.

The *umGanu* and *umBomvane* are said to be rich in tannin; but perhaps they contain also other curative properties. Of the nature and working of the *inKunzi* and *umPhuphutho* we know nothing.

The *ubuVimbha* (Withania somnifera) is also a specific for this disease. A warm infusion is made of a small handful of its roots, and the same quantity of those of the *iCimamlilo* (Pentanisia variabilis), with sufficient water to form a clyster. A useful clyster is also made of a small bundle, about one inch thick, of the roots of the *isaMuyisane* (Spermacoce natalensis).

The most curious clyster I ever came across was the following. It will be remembered that the *inGumbhane* ulcer eats away the tissue at the rectal orifice until it becomes a gaping aperture, perhaps two inches in diameter, and the healing of which is prevented by the constant discharge of irritating stools. A quantity of fat clay is, therefore, taken and injected, in a semi-liquid state, into the rectum. There it dries and effectually blocks the passage for so long a time as the muscular tissue at the anus may require to heal and contract. The clay is afterwards removed by a further clyster of

warm water. As a draught for this disease a cold infusion of the *umSuzwane* (Lippia asperifolia) leaves is taken.

Catarrh, etc.

The several native specifics for the more serious chronic coughs accompanying lung diseases, scrofula, etc., will be detailed below, and any of these would be experimented with to remove the transient cough of the simpler *umKhuhlane*, influenza, catarrh, and the like. The following are some others more suitable for this use.

Of the *uMathoyisa* (Lepidium capense), one may cut up the large tuber, pour upon it about one cupful of boiling water and drink therefrom a dessert-spoonful from time to time. A handful of the leaves of the *uXhaphozi* (Ranunculus pinnatus) may be bruised and infused with a couple of tablespoonfuls of hot water and the whole drunk off to relieve the cough. Or a double handful of the leaves of the bitter *uHlonyane* or *iNyathelo* (Vernonia woodii) may be infused with about a quart or more of water. Of this a cupful may be put aside and drunk in dessert-spoonfuls from time to time, and the remainder used, while still warm, as a clyster. Or a double handful of the leaves of the *uMachakazi* (Conyza incisa) may be slightly boiled and a tablespoonful of the decoction occasionally drunk.

To relieve the headache which is so generally an accompaniment of these febrile attacks, a few leaves of the *iMunyane* (Leonotis leonurus) are pounded and steeped in cold water and the liquid drawn into the nostrils. The pungent leaves of the *uZipho* or *iKhambhi leziduli* (Cardiospermum halicacabum) may be rubbed together in the hands and the fumes inhaled through the nose. Another plant is the *imBhozisa*, whose root is pounded in a little cold water and the liquid drawn up the nostrils. The roots of the *uDlutshana* (Aster asper), of the *uQhume* (Hippobromus alatus) and of the *iBhinini* (Embelia kraussii) are used in a similar fashion. One of the thick leaves of the *umDlebe* (Syn-

adenium arborescens) may be broken up and the pungency inhaled through the nostrils; or the same may be pounded along with the leaves of the *isiShoshokazana* (Ranunculus sp.) mixed in a little water and drawn into the nose.

A snuff for headache is sometimes made from the powdered bark of the *umKhwangu* and the *uMaluleka* trees; or the roots of the *ubuLibazi* herb may be burned and then sniffed at. Should the head-pains be the result of some old skull wound (*inGozi*), the dark portion of the *uMathunga* root (Cyrtanthus obliquus), or the roots of the *inKominophondo* are ground and snuffed up the nose. Other plants used for headache are the *umEmbhesa*, *uKhalimele* (Rhynchosia sp.), *inDawoluthi*, *uPhico*, and *uLethi*.

Chest Complaints.

The Zulu has his weak parts, and perhaps the chief of these, nowadays at least, is the respiratory organs. Since the adoption of clothing and town-life in insanitary hovels, chest complaints have multiplied exceedingly. They come now, not in the form of comparatively harmless scrofulous coughs, but in the more perilous guise of pleurisy, pneumonia, bronchitis and consumption, all of which are answerable for many deaths annually.

Among a people so scrofulous as the Zulu, I suppose it would be only reasonable to expect the presence of typical phthisis even prior to the advent of the white man in the land. And yet I am not aware of any absolute evidence that it was so. But this is by no means equivalent to saying that pulmonary complaints of a tuberculous nature were unknown. Though rare, they were very well known and much dreaded, for the so-called *iXhwala* was undoubtedly of this nature.

The term *iXhwala* really indicates a kind of bovine swelling or tumour. The virus from this, the Zulu theory declares, has been secretly and maliciously introduced into the system of the sufferer by an *umThakathi*, probably through the medium

of food. This explanation will appear at first sight farcical enough; but is it impossible that this particular morbid growth in cattle may be of a tuberculous nature, and, as such, capable of conveying some tuberculous affection to human beings? European phthisis, we must remember, is probably contractible from cattle, not solely through the respiratory, as is popularly supposed, but also through the digestive organs.

The unhealthy growth in cattle called *iXhwala* is not the same as the glandular swellings of bovine tuberculosis, which latter disease is known to the Zulus (at any rate in these present days) as *umMbhila*.

It is a noteworthy fact that the complaint in natives commonly diagnosed by European doctors as consumption is not absolutely identical in its symptoms with the phthisis of our own race. With the natives the wasting of the lungs sets in first at the bottom of the organ; in European phthisis, on the contrary, at the top—a remarkable difference that alone may give ground to suspicion. The duration of the native disease, further, covers a much longer period of time than does the European variety, often continuing over a very large number of years. Is it that among these African people we are confronted, not only with the ordinary type of consumption, but also with a new form of pulmonary tuberculosis called *iXhwala*, and akin to, though distinct from, the former? Personally I have a belief that there are other species of tubercle bacillus infesting the human system besides that of Koch, each giving rise to its own peculiar complaint, yet all so similar as to have been hitherto regarded simply as varying "forms" of the same disease. The bacillus of the native pulmonary complaint has been identified as that of Koch, but perhaps the cases examined were those of real phthisis and not of *iXhwala*; or else the closely allied bacillus of this latter disease may exhibit appearances so similar as to escape ready detection.

Whatever this *iXhwala* disease may be, its incurable nature is universally recognised by the natives; but this does not deter the medicine-man from making valiant efforts to

restore his patient by fearful concoctions of expectorants, sedatives and germicides, though naturally with no enduring success.

A person dying of the *iXhwala* is never "wailed" for, because whoever cries over such a one will assuredly contract the disease himself. This superstition would almost lead us to believe that the natives have already observed the tendency the malady has of breaking out again in the same family or society, in other words, they have an idea, which they can neither understand nor express, that the disease is infectious. Their injunction on all and sundry to "keep their mouths shut" when in the vicinity of a dead consumptive was not far wrong after all.

Consumption, of whichever type, in its incipient form, while still confined to the lower end of the lung, would not yet be recognised as *iXhwala*. It would then be regarded as another complaint, called *isiBele* (the "breast" disease), from the fact of the pain being felt about the nipple. In this stage it is often confounded with pneumonia in the chronic form leading to consumption, or with abscess or gangrene of the lung following pneumonia, to all of which the term *isiBele* might be applied.

An acute attack of pneumonia would not be regarded as the *isiBele* disease, and would probably receive no more distinguishing designation than the generic term *umKhuhlane omkhulu* (a severe fever).

The incipient dry cough of any form of consumption would also be neither *isiBele* nor *iXhwala*, but simply *uDosi*—a name also applied to chronic bronchitis. The *uDosi*, be it known, is the hair of a lion or other such "poisonous" wild beast, which, having been maliciously introduced by an *umThakathi* into the air-passages of an individual, sets up an irritation resulting in a persistent dry cough. A skilful medicine-man claims to be able to extract the *uDosi* from the chest, after which feat the patient immediately recovers!

The prominent feature in pleurisy of a sharp, catching pain in the side would cause that disease to become confused with,

and called by the same name, viz. *uHlabo* or *iHlaba*, as pleurodynia or rheumatic costal stitch.

Any chronic form of chest complaint, if accompanied by a persistent cough, is oftentimes called by the generic term *isiFuba* or *uFuba*, that is, simply "chest disease," and may be either consumption, asthma, or chronic bronchitis.

An acute catarrh, if accompanied by general constitutional derangement with feverishness, would be classed as an *umKhuhlane*; but if it were a simple cold, with the cough as the sole feature, it would be termed merely an *ukuKhwehlela*, or coughing.

The habitual tickling cough, accompanying chronic laryngitis or other throat ailment, would be known as an *uSi* or *uPhepha*.

The native doctor's prescription of drugs is as confused as his nomenclature. A large number of plant-remedies have been found useful in relieving one or other of the symptoms accompanying the various chest diseases, and he prescribes in turn allsoever he is acquainted with, attacking the symptoms either singly, or in common by a compound mixture.

For the *uHlabo* in any form (pleurodynia or pleurisy), four or five pieces, six inches long, of the roots of the *uHlunguhlungu* (Vernonia corymbosa) are taken, boiled well in one cupful of water, and the decoction drunk gradually in spoonfuls, giving early relief from the stabbing pain. Or the roots of the *iDungamuzi*, (N.) *isiZimane* (Euclea natalensis) and of the *iQwaningi* (Capparis corymbifera), together with the thorns of the *iSundu* palm (Phœnix reclinata) and of the *inGqwangane* (Celastrus buxifolius) bush, are tied together in a small bundle, such as can be grasped by the one hand, and an iron awl thrust through the middle of the bundle so as to project at each end. The whole is now boiled. Having taken the bundle from the pot, and holding it by the protruding blunt end of the stout needle, the doctor vigorously stabs the patient here and there about the painful region with the sharp point of the iron, at the same moment blowing with his mouth into

the wound a puff of the hot steam rising from the bundle of boiled roots. Perhaps so uncouth a method obtains its usefulness from acting as a rough kind of counter-irritant.

A less barbarous treatment, and, perhaps, a more effective remedy, is the bark of the *uMahlabekufeni* (Croton gratissimum) and the *umZilanyoni* (Croton sylvaticum). A certain German doctor has attained to some degree of popular fame by affixing his name to a certain patent "oil," which I have found to produce very good results as an eruptive rubefacient in cases of internal inflammation, particularly of the chest. Now, this "oil" is said to consist mainly of half and half croton and olive oils. The Zulus were familiar with this property of the crotons and its employment as a counter-irritant probably long before any European was. The method of application is to ground up the dry bark very finely and rub the powder into incisions cut in the skin.

Decoctions of the leaves or roots of the *umKhokha* (Abrus precatorius),[1] as also those of the *isiGobo* (Asparagus sp.), are sometimes used for this same *uHlabo* complaint; or the leaves and stalks of the *iBohlololo* (Senecio speciosus) may be burned, and the ashes rubbed into incisions made on the spot.

Chest pains generally—an accompaniment, of course, of all of the more serious lung diseases—are said to be relieved by

[1] This small coast-shrub is the identical "weather plant" (Abrus precatorius nobilis)—or else a closely allied species or variety—now rendered famous by the reputed discoveries of Professor Nowack, of Austria, in regard to its supposed powers of foretelling atmospheric and seismic disturbances, generally, of course, of a disastrous nature. Strangely enough, with the Zulus, the plant is used as a common charm for the bringing of "good" fortune, on which account its little red and black bean-like seeds may be often found carried by natives in the purse, pocket or basket. It is, further, a member of the same botanical sub-order as the liquorice plant (Glycyrrhiza glabra), and its roots may contain similar properties. Now, the roots of liquorice are well known as a European medicine for catarrhs and irritation of the air-passages in man. So that we have here another of those numerous instances of the keenness and accuracy of observation of the native doctors.

a decoction of the *iHlinzanyoka* tree (? Celastrus sp.), a handful of whose roots, six inches long, are thoroughly boiled in three cups of water, and the extract slowly drunk off while still warm.

For any variety of chronic coughing of a serious nature, whether it arise from consumption, asthma, scrofula, or what not, any of the following measures may be adopted. Take a small handful of the roots of the larger white-flowered *inTlashane* (Lichtensteinia interrupta), pound, and boil in a large cupful of water till reduced to one half; of this drink a teaspoonful from time to time. This is allied to our anise (Pimpinella anisum), which has a very ancient reputation in Europe for pulmonary affections. Or boil well together, after having been crushed, four or five pieces, six inches long, of the root of the *uThangazana* (Cucumis hirsutus), and a small handful of the small roots of the *uDlutshana* (Aster asper), in about a quart of water, and, when cool, take a small dessert-spoonful once a day. A teacupful of the decoction, diluted with another cupful of warm water, may be further administered as a clyster.

The *uThangazana* has the reputation of giving especial relief in such coughs as are more particularly troublesome at night. For this purpose, a piece of the root, as thick as one's thumb and six inches long, is crushed and boiled in a small cupful of milk, the result being sipped occasionally throughout the night. A warm infusion of the roots of the *inTsangwana* (Tephrosia kraussiana) is also drunk for the same purpose; or the roots of the herb Ursinia tenuiloba may be boiled in milk and slowly drunk while still hot.

A strong general specific for violent chronic coughs of whatever nature is prepared as follows: chop and pound together a foot length of the stout root, two inches thick, of the *iQwaningi* (Capparis corymbifera), of the *umNungwane* (Xanthoxylon capense), of the *uMabusana* (Capparis gueinzii), of the *uMadlozana*, and a portion of the bulb of the *uMathunga* (Cyrtanthus obliquus) as large as a boy's fist; boil all for an hour in two quarts of water, of

which drink a tablespoonful three or four times a day, and take the major portion of the decoction, with the addition of further warm water, if necessary, as an emetic. Or, of the *uMayehlezana* or *uSi* shrub (Crotalaria sp.), one may take a bundle of the roots, six inches long, such as can be grasped by one hand, infuse with four or five cupfuls of cold water, and drink off the liquid. With some stomachs there is a liability to vomit the medicine, which is not desirable.

Another favourite remedy is the *umNyamathi* (Ekebergia capensis or meyeri), of which a piece of the root, six inches long, is chopped up and simmered in three pints of water and administered as an emetic. A large dishful of the pounded bark of the *umPhafa* (Zizyphus mucronata), made into a hot infusion with a quart or more of water; or a single tablespoonful of the decoction of the root of the *iDumbhi lika'ntloyile* (Hæmanthus natalensis), are also sometimes taken in the same way.

If any of these chronic coughs be accompanied by habitual expectoration of blood, *uMabusana* (Capparis gueinzii) is especially indicated.

Many of these native emetics are supposed to be of especial utility as expectorants, relieving the chest by clearing the air-passages and, perhaps, diminishing the inflammation therein. The *uSununundu* (Acalypha peduncularis) herb is such a one, and of it a handful of the roots, a foot in length, is bruised and infused with a quart or more of warm water. Another is the *iBoza* (Moschosma riparia), of which a handful of the pounded leaves is infused with a cupful of cold water and drunk, being subsequently followed by sufficient warm water to excite vomiting. Or sometimes the leaves are boiled, and the extract preserved in pot or bottle, a spoonful being taken as required.

Though not acting as an emetic, a good expectorant for any kind of dry cough is said to be the *isiBhaha* tree, a good pinch of whose powdered bark is drunk in a spoonful of cold water; or it may be mixed with hemp-leaves (*inTsangu*) and smoked.

The natives attribute many of their chronic coughs to scrofula, especially such dry coughs as, although persistent, are not accompanied by any general constitutional disturbance. Under this category the native would, I believe, include even asthma (*isiFuba somoya*).

A remedy highly spoken of for such scrofulous coughs is the *uMathunga* (Cyrtanthus obliquus). Having removed the external covering of a four-inch bulbous root, the whole of the inner portion is boiled in a quart or so of water, and a dessert-spoonful of the decoction taken once daily over several weeks or even for a couple of months. A clyster is also occasionally given, consisting of about a cupful of the warm decoction, diluted with another of simple warm water. A meal of Kafir-corn porridge is eaten at the same time, with the result that a thorough purging takes place, supposedly clearing out the system generally. The *uDlutshana* (Aster asper) is another specific for these scrofulous coughs. A tablespoonful of the crushed roots is thoroughly boiled so as to leave about a small cupful of liquid, of which a teaspoonful is taken once a day. Or an emetic may be made of a slightly larger quantity of the crushed root thoroughly boiled in water so as to leave a large cupful of extract, which is drunk and soon afterwards followed by copious draughts of simple warm water to ease the vomiting. Any other of the remedies prescribed for scrofula might also be used for these scrofulous coughs.

The natives seem to be ignorant of the anti-spasmodic properties of stramonium (*iYoli*) in case of asthma, notwithstanding that the plant grows as a weed on almost every old kraal-site. But for the shortness of breath accompanying this last-named, as well as heart diseases, the roots of the blue-flowered *uMampeshana* (Oldenlandia decumbens) are crushed, boiled, and the decoction drunk.

The *uDosi* or wild-beast's hair, supposed to be present in the air-tubes and to cause bronchitic and similar coughs, is "removed" by the *iDumbhi-lika'ntloyile* (Hæmanthus natalensis). Of this the roots are boiled and the liquid drunk as an emetic.

Febrile Complaints.

Everyone who has had to deal with sick natives will have remarked with what puzzling frequency their ailment is described by them as an *umKhuhlane*. It is impossible to express this very comprehensive term by any single expression in English. It indicates almost any general constitutional derangement of a febrile and generally infectious nature, and may include enteric, scarlet and malarial fevers; small-pox and measles; pneumonia, acute bronchitis and influenza, as well as all the commoner minor catarrhs and bad coughs to which one is periodically liable. Practically nothing is understood of the nature of these important diseases, and the treatment is confined to a simple alleviation of such symptoms as are conspicuously evident, as the eruptions, the cough, and more especially the bile (*iNyongo*).

Every *umKhuhlane* is accompanied by an excessive secretion of some kind or another, and it is this secretion, be it expectoration or bile, be it discharged through the mouth or the rectum, that the natives universally regard as the principal delinquent, responsible for the whole bodily derangement. And in this view they are not without very respectable company; for the immortal Hippocrates himself held a similar view, viz. that the blood, the phlegm and the bile were the three primary seats of disease. His treatment, like that of the natives, aimed no doubt at ridding the system of whatever was abnormal in these bodily fluids.

With the natives the bile is held to be the cause, not only of the stomach and bowel disorders, but even of the chest inflammations and cough. The doctor's attack is therefore vigorously directed against this feature, and for the purpose he uses emetics, enemas and purgatives. A common method is to bruise a small handful of the roots, six inches long, of both the *isiNama* (Achyranthes avicularis) and the *uMasigcolo* or *inKuphulana* (Osteospermum nervatum), infuse with a couple of cupfuls of warm water, drink, and follow with sufficient simple warm water to cause vomiting.

Another course is to make a warm infusion of a handful of the leaves and roots of the *ubuHlungwana* (Wedelia natalensis) with one cupful of boiling water. This is drunk and followed as before by a copious draught of warm water as an emetic. A larger quantity of the plant is prepared in the same way, but with about a quart of water, for use as a clyster. A tablespoonful of the infusion may be also drunk from time to time.

Another remedy is the *uHlonyane* or *iNyathelo* (Vernonia woodii), of which a double handful is taken of the leaves and an infusion made with a quart or more of water to be administered as a clyster. A dessert-spoonful of the extract may also be occasionally drunk.

The *inKonazana* herb (Alysicarpus wallachii) is used for the same purpose, a bundle of the roots, about one inch through, being pounded and made into a hot infusion with a quart or more of water and taken as an emetic. So, also, is the *umFusamvu* tree (Pittosporum viridiflorum), a piece of the bark, about three inches by two, being pounded and steeped in a pint of boiling water, which is drunk, and afterwards followed by sufficient simple water to excite vomiting. Sometimes an enema is prepared of a double quantity of this same bark (which, however, does not seem to possess any independent purging properties) steeped in enough boiling water for the purpose. Another common bile-emetic is the *uMadintsana* herb (? Tripteris sp.), of a handful of whose leaves a hot infusion is made with one cupful of water supplemented by a copious draught of plain warm water so soon as the inclination to vomit takes place. An infusion in a pint of hot water of a single handful of the six-inch roots of the *umSenge* (Cussonia spicata) is prepared and administered in the same way.

The commonest purgative, of course, used for expelling the "bile" in the bowels caused by an *umKhuhlane* is the *iJalambhu* (Ipomœa purpurea), of whose stalks, six inches long, a handful may be bruised in a half pint of boiling water or fowl-broth and the liquid drunk.

A general specific for an *umKhuhlane* is the *umHlonyane* (Artemisia afra—Wormwood), a double handful of the leaves being infused as tea with a quart or so of hot water, and administered either as clyster or emetic.

As a kind of tonic or stimulant, to remove the general seediness or depression caused by the complaint, a piece of the stout root, an inch and a half thick and six inches long, of the poisonous *imFulwa* (Ophiocaulon gummifera) is chopped and infused with three or four pints of boiling water as an emetic.

Other remedies used for an *umKhuhlane* and generally as emetics are the poisonous *uMahedeni* (Phytolacca abyssinica), the red roots of the *inTolwane* (Elephantorhiza burchellii), those of the *uMayime* (Clivia miniata), and of the *umLomomnandi*.

Malarial fever (also nowadays commonly called simply an *umKhuhlane*, and recently in Natal, from the shivering symptoms, *umQhuqho*) is one of the most destructive enemies the native of Zululand has ever had to contend against. When the last *grande armée* of Shaka, composed of the whole male population of Zululand and Natal, was sent forth northwards to fight Soshangane, beyond Delagoa Bay, it was practically wiped out by *iMbho* (as the malignant type of the disease was then called) before it had so much as reached the enemy's territory. Although the natives, even such as have been born within the malarial areas, are not quite so liable as are the Europeans to the severer forms of attack, still, they are very far from being immune against them. Every year in the malarial districts of Zululand a very large number of natives succumb, and some years as large a number as to all other diseases combined. Yet so far they have not succeeded in discovering any efficient remedy against it. Their method is to attack the disease with emetics and purgatives, which, by ridding the system of its excessive accumulation of bile, gives a temporary easement to some of the more distressing symptoms, and so, perhaps, facilitates recovery. We are bound to own that, with the natives, this method is

attended with quite astonishing success. The peppery bark of the *isiBhaha* tree, the veld-herb *isiHlazi*, or any other of the already-mentioned emetics, enemas, and purgatives found growing in their districts would be their usual plant specifics.

Whether enteric fever was or was not an aboriginal disease of the African races, it is certainly met with on rare occasions nowadays in the kraals. One of the chief specifics of the natives for this, or perhaps any similarly eruptive fever, is the poisonous *uQwengu* or (N) *iLozane* (Tephrosia macropoda). The root is first externally charred on the fire—a process said to reduce the strength of the poisonous principle. The unburnt central portion is then ground to a powder, of which a pinch of 5 to 10 gr. is taken, mixed with a like quantity of the inner root-bark of the *inKunzi* or *iBheja* (Bopusia scabra) herb and a little liquid fat or oil.

In the case of eruptive fever, like smallpox and measles, the eruption is mistaken for the disease and is consequently the main object of treatment. Needless to say, not much benefit can accrue from such methods, although, in the case of smallpox, the disfigurement may be somewhat lessened. For this latter the dry roots of the *inKunzi* or *iBheja* herb, together with those of the medicinal *isiDikili* (Lasiosiphon sp.) are pulverised and mixed into a paste with wetted termite earth and plastered over the body. For measles, urticaria and other rashes, a common specific is the *inKokhane* climber, of whose crushed leaves a hot infusion is made and used as a lotion twice a day, a cupful of the medicine being also drunk. The ground roots of the *isaMuyisane* (Spermacoce natalensis) mixed with termite earth are also smeared over the seat of the outbreak. The bark of the *umHlambhamanzi* (Rauwolfia natalensis) and the leaves of the *umSuzwane* (Lippia asperifolia) are other cures. For any of the ordinary body rashes, a double-handful of the leaves of the *uMaholwana* (Ipomœa palmata) is crushed in a cupful of cold water and the whole drunk.

Urinary Diseases.

A large number of maladies connected with the urinary organs, and which seem to be mainly kidney diseases, though sometimes of the bladder and generative organs, are lumped together by the Zulus under the one generic term *iZembhe* or *uJovela*.

To be afflicted with this complaint, whatever form it may take, is somewhat of a disgrace, for it is held to be the result of illicit intercourse with the wife of another man who has previously "treated" her in such a way that, although she be in no wise inconvenienced herself, she shall nevertheless be capable of conveying this disease to her paramour. The charm used by a husband for this purpose is also usually called *iZembhe* or *umSizi*, and consists mostly of parts of certain wild beasts (*iziNyamazane*), charred and pulverised.

The chief specifics for this disease are the *uMakhandaka'ntsele* (Eucomis undulata), and the bark of the *imPisikayihlangulwa* tree. The poisonous *uMahedeni* or *inGubivumile* (Phytolacca abyssinica) is also mostly used in this connection. A small handful of the paste of the bruised leaves, sufficient to cover the palm, is administered, mixed in a big draught of Kafir beer. Soon a profuse perspiration breaks forth, followed by vomiting and ultimately purging. The root, however, is said to be much more potent than the leaves; a piece, half the size of one's thumb, is mixed, after pulverisation, in a cupful of water and given to the patient to drink. As before, a copious perspiration takes place, then violent vomiting. This is assisted by the administration of large draughts of water, time after time, whenever an inclination to vomit manifests itself. Before long purging sets in. At this stage a large portion of beer is given, which is said to allay the vomiting, and the drug works itself off by purging within about twenty-four hours. Should the vomiting and purging continue for a considerably longer period, say for a couple of days, a fatal climax may be feared. Although so dangerous and often lethal, skilled native doctors place an unusual reli-

ance on this bushy climber. Its action undoubtedly exhibits all the symptoms of a virulent vegetable poison, but nevertheless it may contain valuable curative qualities, as it is certain that remarkable cures sometimes follow its application.

Backache or fixed pains about the loins are a common accompaniment of kidney and other abdominal complaints. These are said to be relieved by a half teaspoonful of ground *im Fuzane* root taken in a little gruel; or by the *iXolo* preparation already described. The roots of *uSukumbhili* (Hypericum æthiopicum) are also used as a clyster for the same purpose. Again, incisions may be made at wide intervals round the loins, into which the bulbous root of the amaryllid *uMahlokoloza* is rubbed. A festering of each incision follows, which is supposed to "draw out" the internal ill.

The native pathology of bladder diseases is akin to that of the kidneys. They are mostly lumped together under the single name *iQondo,* whether the complaint be calculus, bilharzia, simple cystitis or what not. Like the *iZembhe* so also the *iQondo* implicates the sufferer in the evil reputation of being a fornicator. Bladder affections predominate among the youthful male population, and it is believed that they commonly follow illicit sexual indulgence. The harm, really caused by their own excess, is universally held to have been contracted from the girl. The father or the accepted lover of this latter may have suspicions of her faithfulness, and he thereupon secretly treats her—on lines similar to those of the *iZembhe* aforementioned—or he may even treat the "lair" in the bush which the couple are supposed to frequent, with some magic medicament, which, while doing no injury to the girl, will inflict an *iQondo* on the youth.

We may remark among aboriginal peoples, still in the elementary stages of medical knowledge, a constant predilection for the homœopathic principle. Thus, a plant is found to cure a certain ailment; the same plant will therefore produce it! This is the principle exemplified in the native views regarding the cause and curing of both the *iZembhe* and the *iQondo* diseases.

A youth, suspecting his girl of faithlessness, will procure an *iBhucu* (Bulbine natalensis) plant and make an infusion, mixing therein a quantity of selected, magical, animal powders. He will drink the mixture, and it acts as a sedative diuretic. The "evil" properties of the *iBhucu* and the various animal powders are then supposed to infect the girl after intercourse without injuring her, but they are subsequently absorbed into the bladder of the rival youth.

On becoming aware that he has contracted the disease, his first endeavour is to discover which particular *iQondo* poison (for there are several) may have been used in his own instance. Having made this discovery (perhaps by the aid of a witch doctor), he physics himself with the same plant to bring about a cure. In the case of the *iBhucu* the slimy juice from a few of the thick soft leaves is squeezed into water and drunk.

The next thing the native doctor might advise him to do would be to apply over the bladder, having first anointed the skin with oil or fat, a poultice made of the leaf-paste of the *umDlonzo* (Mikania capensis), the *umSintsi* (Erythrina caffra), the *uZipho* or *iKhambhi leziduli* (Cardiospermum halicacabum) and the *uXhaphozi* (Ranunculus pinnatus), all of which are caustic in their action, working, probably, like mustard, as a counter-irritant. The plaster is allowed to remain until it becomes unpleasantly hot for the patient, which is said to be in about an hour's time. The last two plants, being particularly caustic, should be applied only in a small quantity.

A handful of the roots of the big-leafed *uLimilwenkomo* or (N) *uLimilwenyathi* (Berkheya sp.) is sometimes boiled in a cupful of water and drunk. Others take half-a-dozen of the small roots of the *isiThumana* (Solanum capense) of the termite nests, pound and boil them well in a pint of milk, and drink a tablespoonful of the decoction three times a day.

Should, however, more drastic measures be imperative, the doctor thrusts a small hollow reed through the penis into the bladder, and blows into the latter a pinch of the pulverised

bark of the *uNukani* (? Stinkwood or Ocotea bullata) along with that of the *uMahlabekufeni* tree and a little ginger. Stinkwood bark is known to be a tannic astringent.

All kinds of penial irritation, from inflammation of the urethra, sores and the like, are treated with a lotion of the pounded leaves and stalks of the *uCathucathu* (Hibiscus surattensis), or dressed with an ointment prepared from the same mixed with powdered *isiBhaha* bark and any kind of fat. Or a pill of the leaf-paste of the *isiThumana* above-mentioned may be inserted well up the urethra, and allowed to remain until urination, following a copious draught of beer to be subsequently taken, washes the whole channel thoroughly out.

Stricture is a dangerous complication or result of urethral and bladder disorders. Whatever may be the real cause of the consequent difficulty of urination—whether stricture, urethral spasms, defective muscular force or hysteria—the *uGobo* (Gunnera perpensa) and the Natal Lily or *umDuze* are prescribed. Of the former a large handful of the pounded roots is boiled, along with the chopped bulb of the latter, in half a pint or so of water, and the decoction drunk. The preparation of the *isiThumana*, above-given for cystitis, is likewise administered as a remedy for stricture. Some also use the *uBangalala* herb, one of whose roots is boiled in milk and a mouthful taken from time to time. The bark of the *umLahleni* tree, mixed with urine, is sometimes used as a charm by evil-intentioned persons to cause stricture in those they hate. On the usual homœopathic principle, we may think it possible that the Kafirs have found this same bark useful also as a curative agent for that complaint.

Venereal Diseases.

Previous to the advent of the white man there is every reason to believe that venereal diseases were absolutely unknown among the Zulus.

It is averred that the Cape Colony Xosa doctors treat

syphilis (*Z. iBuba, isiPatsholo, uGcusulu*), with good results, while in its primary and secondary stages, by preparations of *ubuVimbha* (Withania somnifera), of *umThuma* (Solanum melogena), and several species of the *umThombho* (Cissampelos torulosa, etc.). In Natal, as compared with the Cape Colony, the disease is a comparatively recent introduction, and yet, when not too far advanced, the local medicine-men seem generally able to get the better of it. I have not heard of their using any of the above-mentioned Xosa specifics for this purpose, although they are fully aware of the really antiseptic or germicidal properties of the *ubuVimbha*, for it furnishes them with one of their chief remedies for the malignant rectal ulcers of the *isiGwebedla* disease, while the blood-purifying powers of the *umThombho* are also known, it being universally used for scrofulous affections.

The Natal men, I find, administer internally a decoction of the roots and leaves of the *uNjalwana* veld-herb, also a decoction of the leaves of the common aloe or *umHlaba* (A. ferox); and they sprinkle on the external sores the same leaves charred and ground, or better, a paste of the bruised leaves of the *uZipho* or *iKhambhi leziduli* (Cardiospermum halicacabum), the *umDlonzo* (Mikania capensis), the *umSintsi* (Erythrina caffra), and the *uXhaphozi* (Ranunculus pinnatus), is laid on as a poultice. All of these latter plants (especially the first and last named) possess intensely caustic properties, and should therefore be allowed to remain on the body but a short time, perhaps not more than an hour. They are said to burn and bring away all the foulness of the ulcerated parts, leaving them clean, and stimulating them to rapid healing.

For all urethral and vaginal discharges or sores of a generally venereal nature, as in gonorrhœa or gleet (*uGola, iKlilabhu, iDilophu*, or sometimes by the generic terms *uJovela* or *iQondo*), a large pill is made of the pounded leaves of the *uZipho*, which is then thrust into the vagina or penis, and allowed to remain. A copious draught of beer is subsequently

taken, presumably in order to induce a washing-out by urination. Or the leaves and stalks of the *uCathucathu* (Hibiscus surattensis) are crushed very finely in cold water and the strained milky liquid is injected into either of the channels. The urethral affections are also relieved by the *isiThumana* (Solanum capense), of which six of the small roots are pounded, boiled in a pint of milk, and a tablespoonful of the decoction drunk three times a day. The preparation of the *iBhucu* already mentioned is also taken internally to render the urine bland.

Uterine Disorders.

I need scarcely say that the distinguishing nature of the various uterine disorders is not recognised. As a general specific we often find the following method employed: the pulverised bark of the *uNukani* tree (?Ocotea bullata) is mixed with that of the *uMahlabekufeni* tree (Croton gratissimum and C. sylvaticum) and a little ginger and blown, through a small hollow reed, into the womb.

What the properties of the *uNukani* tree may be I am unaware, but I have an opinion that they are of a caustic nature. Those of the crotons, as a cutaneous eruptive irritant and stimulant, are well known. If the crotonic principle, then, is so powerful when applied to the external skin, we may conclude that its action will be considerably stronger when applied to the much tenderer tissue of the internal organs. In this way, perhaps, it may be of some real value when introduced into the womb in cases of inflammation, or where that organ is overcoated with morbid matter requiring cauterising.

In cases of injuries to the womb from obstetrical operations, of uterine inflammation and the like, a hot infusion is made of the leaves of the *umJuluka* running herb, a portion being drunk and the rest injected either into the womb or into the rectum.

Impotency and Barrenness.

With all primitive peoples, all that pertains to the sexual functions, involving as it does the propagation of the species and the preservation of the tribe, is a matter of paramount importance. Impotency on either side is with them more than a disgrace, it is a calamity. Should the male organs fail altogether to produce the seminal fluid, the roots of the *imPindisa* (Rubia cordifolia) are boiled and drunk at bedtime, resulting in an early emission. A hot milk infusion of the roots of the *uQontsi* (Eriosema cordatum and E. salignum) herb has a similar effect. Or the powdered root of the *iHlamvu* (Gloriosa virescens) may be drunk in whey. The pulverised root of the amaryllid *uMahlokoloza* is sometimes blown through the urethra.

Should the seminal discharge be present, but lack vitality and fail to produce conception, a prize specific is the creeper *uNgibonisele*, of whose roots a hot infusion is drunk by both husband and wife. It is, however, imperative to success that the latter be quite unaware of the husband's having also drugged himself with the medicine.

The roots of the *iBhuma* bulrush (Cyperus sp.), along with those of the *iQwaningi* (Capparis corymbifera), furnish another remedy ; and the *uBangalala* herb enjoys a particularly high reputation, one of its roots being boiled in milk and a little of the decoction drunk from time to time ; as does also the veld-herb *uNjalwana* or *iKhambhi lesipatsholo*, whose roots and leaves are boiled and a small quantity of the decoction drunk three or four times daily for a few days. In a word, almost anything calculated to produce irritation of the sexual organs is greedily availed of as a means to remedy impotency. The *imBhabazane*, or common stinging-nettle, the *umHlwazimambha*, another nettle-like creeper, the roots of the herb *amaQate* or (N) *uBhusha* are all called upon to do service to this end.

Where simply a lack of nervous or muscular power is supposed to be the defect, the bulbous roots of the *uNdwendweni*

or *iNabelejongosi* (Eulophia arenaria) are slightly boiled, and a tablespoonful of the liquid occasionally drunk.

The prospect of at last attaining to the crown of maturity is hailed with proud delight by both boys and girls alike. All kinds of measures are employed by them to hasten its accomplishment. Should the menstruation be delayed—and this equally applies to all subsequent retarded periods—resort is had to the *imPindisa* (Rubia cordifolia). Over-eager children even eat the raw roots of the plant; but the orthodox method is to boil them and drink the decoction. Another first-menstruation specific is the *inDawo* (Cyperus esculentus), a handful of whose nodulous roots are boiled and mashed in a little *amabele* porridge and then eaten; but the action of this may perhaps be that of a general stomach tonic rather than of an emmenagogue.

So constantly does this plant *imPindisa* reappear in all native treatment of all sexual ailments that one is almost forced to believe that it must possess some useful quality. One might at first have supposed this property to be of a nature inducing "heat" or local excitement, seeing that it is indicated for impotency as well as retarded menses. But this can scarcely be the case, if those native doctors be right who prescribe it also in cases of metrorrhagia.

For profuse menstruation of all kinds, the roots of the *imPindisa* are mixed with those of the *umTshiki* grass (Eragrostis plana), boiled, and the liquid drunk. The menstrua cynocephali, deemed so necessary an ingredient by the native doctor, for the homœopathic reason that the complaint is held to be due to a malicious poisoning of the individual with such substance, need not be mentioned here.

When the monthly process is accompanied by pain—a disorder coming under the generic term *isiLumo* (any unrecognised abdominal "gnawing")—relief is sought in the pink-flowered *isiDwa* (Gladiolus ludwigii). Two double handfuls of its nut-like roots are crushed and boiled in two cups of water, which is then injected per rectum, and may

be repeated every day as long as required. Another larger kind of gladiolus (also termed *isiDwa*) having a raceme of large-sized orange-yellow flowers, is likewise employed for the same purpose. Or the large tuberous root of the *isiNwazi* (Cissus cuneifolia) is chopped and boiled in a quart or so of water to form an enema. Other remedies are the *isiNdiyandiya* tree (Bersama lucens), of which the bark is used; and the *umTimatane* or *isiNywane* (Royena lucida), prepared as an enema.

Dysmenorrhœa is most generally due to chlorosis or anæmia, and for such iron is the orthodox European specific. It is another proof of the curiously correct insight of the Zulu doctors that they, too, were aware of this latter fact, and in their treatment of painful menstruation regularly prescribed, in the old iron-smelting days, a powder made from the dross or slag.

If impotency is lamented in the case of the male, sterility in the female is even more deplored, if only that a heavy price has been paid for her. The native understands nothing of the causes of barrenness, for the reason that he is ignorant of the whole physiology of procreation. Nevertheless, he has several remedies which, when they chance to find the conditions corresponding to their peculiar properties, appear to be efficacious.

A common specific is the beautiful liliaceous *iHlamvu* (Gloriosa virescens), whose roots are pounded, mixed with food and eaten by husband and barren wife, with the result, as they say, that the latter conceives. We have recently heard of a discovery that yeast has proved an effective cure for barrenness in cows, and the explanation given (whether correct or not, I cannot venture to say), was that the yeast had the effect of killing the particular microbes responsible for the uterine disease. Now, if there be any truth in such a statement, the *iHlamvu*, inasmuch as it is a well-known lice-killer, may also have the nature of a germicide, and act on human beings in a similar way to the yeast on cattle.

Other native doctors prescribe the flowers of the *isiNama*

esibomvu sehlathi (Pupalia sp.) which, after bruising, are rolled into a couple of small paste-balls, one of which is swallowed by the man, the other inserted into the womb, with the result that in due time conception takes place. Or, the roots of the *uNgibonisele* climber may be boiled, a portion of the decoction being drunk and the remainder injected into the womb. Another favoured remedy is a mixture of the roots of the *iBhuma* rush (Cyperus sp.) and the root-bark of the *umThuma* (Solanum sodomœum). The *iLabatheka* (Hypoxis latifolia) is also sometimes used.

Should a painful menstruation be an accompaniment of the inability to conceive (as might happen in the case of fibroid tumours), the roots of the *uMpondonde* (a species of aloe) are employed in the same way as those of the *uNgibonisele* above.

In some females there is a disposition to deliver prematurely or miscarry. This misadventure may be prevented by the administration of any *umSekelo* (a generic name for any medicine of this class), for instance, a certain bush climber (Pyrenacantha scandens). Of this the roots are selected, pounded, steeped in cold water and the infusion drunk in cupfuls from time to time.

To facilitate delivery, or to procure it when retarded—medicines generally called an *iNembhe*—several plants are indicated. Of these one of the chief is the *iNothwane* or *inDola encane* (Triumfetta rhomboidea). A bundle, such as one can easily grasp in the hand, of the six-inch roots is pounded, a hot infusion prepared with a cupful of boiling water, which is then drunk. Other remedies are the *iBhuma* (Cyperus sp.) rush, the bulbous root of the *uHlakahla* herb, the veld-shrub *uHlunguhlungu* (Vernonia corymbosa), the bush *iKlolo* or *iLalanyathi* (Grewia occidentalis), the *uMayime* herb (Clivia miniata), the climber *isiNwazi* (Cissus cuneifolia), and the herb *uGobo* or *uKlenya* (Gunnera perpensa).

But the mother's troubles are not yet at an end. There is that perilous contingency of parturition known as puerperal

fever. In order to facilitate the due expulsion of the after-birth and the proper clearing of the womb, the natives employ the roots of the aforesaid *uGobo*, along with those of the *isiDwa* (Gladiolus ludwigii).

The native doctors seriously assert that they can not only alter the sex of the offspring habitually borne by any woman, but they can actually procure the birth of whichever sex they will. Use is made of that beautiful orange lily (Gloriosa virescens) already referred to, and which is commonly called the *iHlamvu lomfana nentombhazana*. The peculiarity of this plant is in its root; some roots are said to exhibit the shape of the female organ, while others represent the male. All that is necessary is to physic the wife before coition with a decoction of a root which resembles in shape the organs of whichever sex is desired!

I once received the following interesting information as a valuable professional secret. "Your goats perchance have the undesirable habit of bearing always useless males. Catch a weasel (Pœcilogale albinucha), dry it whole, grind it to powder, and administer in water to the she-goats before covering. The result will be female offspring."

Rheumatism, Heart Complaints, Dropsy, etc.

Rheumatism in all its forms is very common among the natives owing to the habitual sleeping and sitting on damp ground-floors, and to the constant neglect to change wet clothing.

In these cases an up-to-date Zulu doctor has first resort to the *iPhungulo* or steam-bath. The process is described in my Zulu-English dictionary as follows: Certain medicines (which are erroneously supposed by the natives to be the curative element) are boiled in a large pot, over which the patient sits, closely surrounded by grass mats or blankets, until he becomes thoroughly steamed out, the steam being maintained by the insertion into the water of two or three large red-hot stones. The patient is afterwards sprinkled over the bare body with the same or another similar decoction

while boiling hot, the sprinkling being done by a small bunch of the leafy stalks of the *umGunya*, *iCimamlilo*, *uMagwanyana* and other herbs, whose property is said to be to render the boiling water harmless. The native doctor thus first clears out and "softens down" the body through a vapour-bath, and then endeavours to excite a shock or thrill throughout the system by means of the hot-water sprinkling. This treatment is further supplemented by medicinal draughts.

To allay the pains of rheumatic fever, the whole viscous bulb of the *inGcino* (Scilla rigidifolia) veld-herb is thoroughly boiled in a quart of water, of which one tea-spoonful is taken morning and evening for one day only. Or a large handful of the *uGobo* root (Gunnera perpensa) is pounded and boiled along with the chopped bulb of the *umDuze* or Natal Lily, and the decoction drunk. Other general remedies are the roots and bark of the *umNyezane* (Dovyalis rhamnoides), which are boiled and the extract drunk. Or the roots of the *umLuluma* (Turræa heterophylla) along with *umQalothi* bark (Strychnos henningsii) may be prepared in the same way. The pungent bark of the *isiBhaha* is also praised as a specific for rheumatism, and I am of opinion that the peppery bark of the *umNungwane* (Xanthoxylon capense) would prove equally efficacious.

Local treatment sometimes takes the form of a simple sprinkling of the painful part, by means of a small brush, with the boiling decoction of the *iCimamlilo* (Pentanisia variabilis), this plant, the pretty wild forget-me-not of the veld, having the reputed property, as mentioned above, of preventing burning liquids from injuring the tissue. Similarly, the roots of the *uShaqa* (Berkheya sp.) may be boiled, its leaves pounded and mixed with cold water, which is then added to the boiled root-decoction, and the mixture used to foment the painful limb, any benefit derived therefrom being probably due to the fomentation rather than to the herb, which is generally held to be simply astringent.

For stiff-neck the bark of the *umSongi* tree is used.

Heart troubles are an accustomed complication of rheumatism. The native doctor knows nothing about the functions of the heart, though acquainted with the symptoms of heart diseases (commonly termed *uValo*, because supposedly located in the cartilage at the end of the sternum), and, in his feeble way, he is able to meet the call made on his skill.

He takes the roots of the blue-umbelled *uBani* (Agapanthus umbellatus), makes therewith a hot infusion in a quart of water, to be administered as an emetic and repeated daily. Such a daily emetic may be also prepared from the red roots of the *umDabu* shrub (? Elephantorhiza sp.); or these same roots may be dried, pounded, and rubbed into incisions below the breast. A handful of the leaves of a species of Mesembryanthemum (called by the natives by the generic term *iKhambhi lamabulawo*) is sometimes infused in a little boiling water and used as an emetic against the fearful dreams symptomatic of heart weakness. For such dreams the *iLabatheka* (Hypoxis latifolia) is also used, a hot infusion being made of its bulb and taken as an emetic. The inner bark of the white-flowering *uNtliziyonkulu* or *umuWane* tree, as also the bark of the *uMoyawovungu* tree and the roots of the *umVuma* (Turræa floribunda) tree, taken as an emetic, are other remedies.

The *inDabulaluvalo* (chips of crystal or natural glass hawked in from Basutoland) so valued by the natives, is not worth referring to, unless to show what absurd and injurious practices (for the glass is broken up and taken internally!) these people are capable of mixing up with much otherwise reasonable treatment. The like remark applies to the specific of some doctors for palpitation, viz. the dried hearts of the *inDhlondhlo* snake and the *uXamu* (Monitor niloticus); but the roots of the *uMampeshana* (Oldenlandia decumbens) herb, crushed, infused in boiling water and drunk, which are used for this same purpose of palpitation and shortness of breath, may perchance be of some benefit.

Dropsy of the lower limbs (called *uMankunkunku, isiKhukhukhu*, or *iKhunkulo*, by which latter name rheumatic swellings

are also called) is a frequent accompaniment of heart troubles, and is regarded as the result of *takata* poisoning. Several such "poisons" are mentioned, vegetable and animal, but among the commonest is the diodon or globe-fish (Tetraodon stellatus and inermis) found along the Natal coast. Now, we do know that some varieties of this fish are really poisonous, although I am not aware how the poisonous principle acts on the human system. It is just possible that it may affect the heart, and so really give rise to dropsy of the limbs. Whatever the cause, the native treatment is the same. Chief reliance is had on the vapour-bath, already described under rheumatics. Certain species of *inTsema* or dwarf euphorbia (E. pugniformis and E. bupleurifolia) are also employed, the roots being dried, burnt, and the ashes rubbed into incisions made about the affected parts.

There is a vaguely described complaint with the natives called *isiBhobo* or *amaNxeba*, which appears to be mostly intercostal neuralgia, at other times muscular rheumatism, or a symptom of liver disease. It is another of the *takata* maladies. The *amaNgwe* and the *umZilanyoni*[1] or (N)*uMinya* bushes are among the chief poisons supposed to cause it. The latter bush is so named because all birds avoid it. The witch-doctor is usually consulted by the patient as to which poisonous plant may have been used, and the same plant becomes once more the antidote. Should it have been either of the above, the roots are boiled and given as an emetic, a small portion being also drunk; or they may be ground and rubbed into incisions.

Sometimes the roots of the *umQaqongo* (Clerodendron glabrum) are mixed with those of the *iBoza* (Moschosma riparia), a hot infusion made with a quart of water and taken as an emetic. Another remedy is the *iBohlololo* or (N) *inZwabuhlungu* (Senecio speciosus), whose leaves and stalks are burnt and the ashes rubbed into incisions. Or the

[1] This is said (though personally I have some doubts) to be a different plant to the *umZilanyoni* or *uMahlabekufeni* tree (Croton sylvaticum) already mentioned.

bark of the *uMahlabekufeni* tree (Croton gratissimum and C. sylvaticum) and the dry root of the amaryllid *uMahlokoloza* may be ground to powder and rubbed in as before. The male of the (N.) *iDungamuzi* (Euclea lanceolata) and the *isiBhaha* are other reputed cures.

A good counter-irritant for any kind of fixed internal pain is said to be the *umNqandane wempisi* (Royena villosa), a bush found along the coast, whose leaves or pounded roots are bruised and laid over the painful spot for perhaps half an hour or an hour, as the plant has strong caustic properties. The compound plaster, or indeed any single one of the ingredients—*umDlonzo, uZipho, uXhaphozi* and *umSintsi*—already mentioned under bladder complaints, is equally efficacious for the same purpose. An effective eruptive rubefacient for lung, and probably also for any other internal inflammations, is the bark of the *uMahlabekufeni* (Croton gratissimum) and the *umZilanyoni* trees (Croton sylvaticum), which is ground very finely and rubbed into incisions in the skin.

Diseases of the Nervous System.

The medicine-man often meets with spinal diseases and prescribes the roots of the *uGobandlovu* (Secamone gerrardi), of the *uSahlulamanye* (? Pterocelastrus rostratus), of the *uNgazi*, and of the *uMafumbhuka*, all ground to powder, along with the dried body of an *iGomonqo* or large fruit-bat, and rubbed into incisions made along the affected part.

Paralysis is held to be a local affection of the particular limb concerned. Its specifics are the *uNtlangothi* and *umNungwane* (Xanthoxylon capense).[1] The administration of the former is described in my Zulu-English Dictionary as follows: "The patient stands in the sun, and then, commencing with the length of his shadow, the doctor makes

[1] An allied tree (Xanthoxylon fraxineum) is used in America for chronic rheumatism, which, from the crippling of the limbs, would, perhaps, in native diagnostics, be regarded as akin to paralysis. Maybe the *umNungwane* also does possess useful qualities.

incisions in it along the ground and so right away up the whole unaffected side of the body. On the following day this process is repeated with the other or affected side. Finally, the bark, after having been rubbed into the incisions, is boiled in water, and the patient, dipping his fingers into the hot decoction, is required to keep sucking the liquid from the finger-tips, afterwards smacking with them the several affected joints. A cure follows—when the omens are propitious!"

Other doctors approach nearer the mark of reason, and advocate the hot-air treatment. A hole is dug in the ground, a great fire is kindled inside, and, after the ashes have been removed, the patient enters, and the hole at the top being loosely covered over, is allowed to perspire freely for some time. He is supposed to come out more or less cured. It is possible that the shock caused by the burial in a half-roasting pit, apart from the general benefit conferred on the system by the copious perspiration, may also not be without its advantages. It seems pretty certain that the native doctors have an inkling of the curative effect of "shock" on certain nervous and muscular diseases.

A native is reported as "unable" to move his limbs—perhaps from paralysis of some kind. The doctor orders him to be placed amidst a heap of dry faggots completely encircling him, and perhaps a foot or more high, at a foot's distance. The sticks are then set on fire, and the patient, "unable to move," is compelled to see and to feel the nerve-disturbing flames arise on every side around him. Water medicated with *iCimamlilo* and similar herbs is constantly sprinkled by the doctor on the firebrands nearest the patient, so as to control the flames and prevent burning. This sprinkling further creates also an amount of steam about the patient scarcely less dreaded than the fire. At length the fire burns itself out; the sufferer is removed "much exhausted," but sometimes quite recovered.

In this connection I may add how in a case of epilepsy the patient was ordered to supplement the medical treatment by

plunging, at a certain hour, into a particular pool—everywhere known to be especially infested with crocodiles, and reputedly also with pythons—in one of the rivers in further Zululand. The object of this, it seems to me, could have been nothing other than to cause a vitalising shock to the brain and nerves.

Hysteria.

Hysteria is very common among native girls. In the majority of cases it is the result of a mental disorder, and although not necessarily caused by any physical derangement, is often sympathetically aroused, through the nerves, at those times when the sexual functions are most active, as is evidenced by the fact of hysteria occurring so frequently about the menstrual period. The Africans being a race of strong emotions, both sexually and sentimentally, we should almost expect hysteria to be rife among them.

The nature of the complaint not being understood, it is always attributed to the evil "charm" of some malicious young man. Technically the girl is said to have been "thrown at" (*phosiwe*) by him, and the charm used, and supposed to cause the hysterics, is called an *iHabiya*. These *amaHabiya* may be harmless animal substances, as the fat of lions, leopards or various birds, but they are more frequently plants. The native never administers his charm internally to the individual, mostly not even corporally at all. The same plant as is supposed to have caused the hysteria is regarded also as its antidote; which accounts for the universal custom of requiring that the same young man who has been detected "charming" a girl in this way shall also cure her, as he alone will be cognisant of the proper remedy. Among a large number of plants reputed to possess such properties, we note the roots of the *uKhathwa* herb, of the *umMbhezi* tree, or of the *amaPhofu* bush.

The root of the *inDawoluthi emnyama* (Belamcanda punctata) is employed to allay the hysterical crying.

Perhaps it possesses some sedative properties. A hot infusion of the fleshy stalks of the *uZililo* (Stapelia gigantea) is used as an emetic for the same purpose.

The physical or mental affection with which native witch-doctors are always afflicted may be a form of hysteria, and they are sometimes medically treated. For instance, the roots of the *umHlonishwa* (Psoralea pinnata) and of the *uBhubhubhu* climber (Helinus ovata) are pounded and stirred with cold water until the liquid froths, when it is drunk as an emetic. Multifarious superstitious formalities are at the same time performed, but their mention is of no importance here.

A few years ago a curious complaint, forming quite an epidemic, was introduced into N. E. Zululand from the adjoining Tongaland. The disease attacked young persons of both sexes, but generally girls. The sufferers would congregate in bands and they would have wild convulsive fits, and fits of jumping frenzy during which the head would be completely smothered beneath several layers of cloth secured about the chest and back by braces of goat skin common to all types of Zulu witch-doctors. They would cry in uncanny tones, likened to the bellowing of a bull, and would speak in an "unknown tongue."

A person so afflicted, even after a more or less complete recovery, is known as an *iNdiki*.

The Zulu imagines that the disease is due to a new type of spirit, akin to the *iDlozi* (or ancestral familiar spirit) and *umLozikazana* (or whistling familar spirit) and yet distinct from both.

I have prosecuted some inquiries, which have led me to the conviction that the convulsive fits were plainly those of epilepsy; that the "unknown tongue" was simply incoherent mutterings in Zulu and kindred languages, and that the rest was mainly hysteria.

Insanity.

Various physical derangements are apt to cause a temporary insanity or delirium (*uHlanya*) with the natives, mostly mani-

festing itself in a wild rushing about the country. When this symptom appears—which, of course, in the native view, amounts to a distinct disease—a piece as large as the fist of the very poisonous bulb of the *inGcolo* forest-climber is very thoroughly boiled in a pint or more of water, of which only one teaspoonful may be given to drink. This quantity is said to suffice of itself to cause in a healthy individual mental derangement of some kind lasting several hours; the already delirious, however, it is supposed to bring round. Another plant said to produce a similar kind of insanity (though I have not heard it prescribed as a cure for the same) is the bulb of the *iLabatheka* (Hypoxis latifolia).

Skin Diseases, etc.

Body sores, especially if intractable, are plastered with the ground roots of the *inKunzi* or *iBheja* herb (Bopusia scabra) moistened with a little water. This plant, we may recollect, is a chief specific for the ulcerous rectal disease called *isiGwebedla* or *inGumbhane*. No doubt it really possesses some kind of antiseptic power. This may also be the case with the running pea-like plant *uQwengu* or (N) *iLozane* (Tephrosia macropoda), which is not only curative of sores, but in leaf-extract is used for destroying head-lice, and effectually expels intestinal worms from cattle, although dangerously poisonous if rashly taken internally by human beings.

The *umNungwane* (Xanthoxylon capense), again, from its use in the preservation of meat and in the treatment of decayed teeth, undoubtedly contains antiseptic powers of a high order, and similarly also the *ubuVimbha* (Withania somnifera), the leaves of both of which are successfully employed in the healing of sores.

The leaves and roots of the *uShaqa* or *uShwawu* (Berkheya sp.), pounded and steeped in cold water, furnish an excellent astringent remedy for the same purpose.

A general outbreak of sores throughout the body is treated

with a dose of *uZipho* (Cardiospermum halicacabum), a handful of the leaves being pounded in warm water and drunk.

The leaf of the common kraal-weed *iYoli* (Datura stramonium), freed of its mid-rib, and laid over a painful wound or sore, is certainly delightfully soothing, if not indeed also curative. Another plant used in this connection is the green-podded *isiNama* (Priva leptostachya), of which the seeds are ground and spread on as a plaster. A leaf-paste of the shrub Polygonum serrulatum is also an efficient sore-healer.

For cancerous growths (*isiDla*), as ulcerative or gangrenous stomatitis, and popularly (though doubtfully) even for true cancer, the large *umHlontlo* Euphorbia (E. grandidens) holds a universal reputation throughout South Africa of being the one sovereign remedy. The so-called cancer bush (Sutherlandia frutescens) has likewise a reputation as a cancer cure, though I am not aware that its reputed properties in this respect are known to the natives here.

Thrush of infants (*amaLovula*) is cured by rubbing over the sore parts of the mouth the crushed leaves of the sorrel-like *isiThathe* or (N) *isiNungu* (Oxalis semiloba).

For itch (*uTwayi*), eczema (*umFula, umuNa*) and similar cutaneous diseases the common specific is a lotion made with hot or cold water, of the pounded bark and roots of the *uSolo* or Flat Crown (Albizzia fastigiata). The juice expressed from the leaves of the *iBhucu* (Bulbine natalensis) is also used.

Ophthalmia.

Owing to the prevalence of scrofula, ophthalmia (*inTelo*) of the strumous form is common among the natives. It is regarded as the work of an *umThakathi*, and the skilful doctor claims to be able to extract from the organ the injurious bodies, which are declared to resemble small grains of Kafir-corn! This statement seems to be merely a childish

exaggeration of the granulations sometimes formed on the inner side of the eyelids after purulent ophthalmia.

For pustular ophthalmia generally, incisions are first of all made above and about the eyes; then a quantity of the leaves of the small red-berried *isiThumana* (Solanum capense), found about termite nests, is boiled, and the face, held over the steaming pot, treated to a vapour bath. The eyes are subsequently bathed in the decoction, and the juice of the berries may be rubbed into the incisions. There are several other uses of this plant which tend to indicate that it contains germicidal properties of some real value.

The large rough leaves of the *uLimilwenkomo* or (N) *uLimilwenyathi* (Berkheya sp.) are employed in a similar manner to the above.

Another germ-killing plant is the *umEmbhesa* shrub, whose roots are used as a lotion for sore eyes, as well as a powder for destroying head-lice.

The *isiHlosa* herb is another remedy for ophthalmia.

The inflammation or redness of the eyeball occurring in all forms of this disease, especially in the common catarrhal form, is relieved by an application of the pungent root of the *uSolo* (Albizzia fastigiata), an inch of which is pounded in a small quantity of cold water, and a drop or two of this latter poured into the eye from time to time. The leaves of the green-podded *isiNama* (Priva leptostachya), as also those of the *umThunduluka* or Natal plum (Ximenia caffra), are employed in the same way.

The peppery roots of the medicinal *isiDikili* (Lasiosiphon sp.), as well as the leaves of the *uMpondonde* aloe, are burned to ash, and a pinch of the latter inserted into the eye. Or the flowers of the *imPepho* herb are pounded, mixed with soot, and dropped into the eye before going to bed.

A universal household remedy is to apply in the same way a little of the pulverised backbone of the cuttle-fish, or even of the shell of the common snail—a simple remedy said to be really efficacious with both men and beasts.

Although the real sarsaparillas of South and Central

America are not found in S. Africa, a single species of the same genus is indigenous to the coastal bush of Natal and Zululand. This is the *inGqaqabulani* or (N) *iYali* or *uLimilwenyathi* (Smilax kraussiana). It is an entangling bush-climber with stems about a quarter of an inch in thickness, bearing tiny hooked thorns. It constitutes one of the minor eye remedies of the natives when afflicted with ophthalmia, though generally in conjunction with one or other of the plants already mentioned, a decoction being made, and the eyes held for a time over the steaming pot.

Earache.

Pain in the ear is relieved most usually by the thick mottled leaves of the dwarf *isiKholokotho* (Sanseviera thyrsifolia), which are warmed over the fire and a drop of the juice let flow into the ear. The roots of the *umFana-ka'sihlanjana* (Stylochiton sp.), boiled in a little urine, or the leaves of the *isiNama* (of the kind used to provide smoking-tubes) crushed and steeped in the same fluid are other cures for earache. The *umSintsi* (Erythrina caffra) leaves are also sometimes crushed, infused in hot water, and a drop of the liquid placed in the ear. The *umHlakuva* is another common household remedy for this purpose.

Toothache.

Before the advent of the white man, dentistry was an unknown art among the Zulus. They were a people not yet attained to the inventive stage, and they turned instinctively to Nature for aid in all their needs.

Owing to the lack of suitable implements for extraction, the aim of the native doctor is to destroy the troubling tooth *in situ*. He claims to possess medicines which, when applied to a decaying tooth, cause it to drop out forthwith. This is merely an exaggerated statement of a property certain plants have, when inserted within the decayed cavity, of causing such teeth to break up, thus falling out piecewise. Such

plants commonly allay the pain at the same time by killing the nerve. Carbolic acid is a good example of this kind of drug with us.

The famous thorny *isiKhumukela* bush, growing in the bush-veld, is one of the principal native medicines. The dried roots are ground into a powder and inserted into the cavity of the tooth, having the above-mentioned effect. The small reddish-berried *isiThumana* (Solanum capense) is said to possess the same powers and is prepared in the same way. The root-bark of the *umNungwane* (Xanthoxylon capense) is pungent and disinfectant. Applied as before it is said to relieve the pain very rapidly, and no doubt at the same time destroys the corroding bacilli.[1]

The powdered root of the *umKhovothi* (Chætachme meyeri) and the leaf-paste of the *ubuHlungwana* (Wedelia natalensis) have the reputation of being equally efficient as dental anodynes.

Others poultice the painful tooth with a paste of the pounded roots of the *umHlakuva* or castor-oil plant, or chew the roots and leaves of the *isiSinini* herb, or the very bitter, milky roots of the *umThombho* climber (Cissampelos torulosa).

Not only can the native doctor speedily rid you of toothache, but he will tell you with equal conviction that, by imitating the peculiar cry of the *imBhulu* rock-monitor (Veranus albigolaris) you may as speedily induce it!

Extraction of Thorns.

The professions of the native doctors in regard to the extraction of thorns are no whit less marvellous than those in regard to the extraction of teeth. A few *uNyawothi* (? Penicillaria spicata) seeds are taken, one half thereof ground very finely and inserted into the wound, the other half sown whole in the

[1] It is curious that the kindred tree (Xanthoxylon fraxineum) should be used in America for identically the same purpose, and be there locally known as the Toothache-Tree. This fact testifies to the probable usefulness also of the Natal species.

soil. At the same moment as the sown seed sprouts through the earth the thorn will emerge from the flesh in which it is embedded!

Others insert a pinch of pulverised *inKomankoma* root (N. filix-mas) into the wound with an equally propitious result.

Wounds.

Quite 50 per cent. of Zulu men bear ugly scars (*izinGozi*) about the head or body as souvenirs of faction or other fights. Some of these, covering split or splintered bones, cause them periodical pain (*iziLalo*) throughout all their after-life. For wounds, when fresh, whether caused by assegai or stick, the native possesses nothing better than the *ubuHlungwana* herb (Wedelia natalensis). The leaves are bruised and steeped in a little cold water, a few drops of the extract are poured into the wound and the whole of the leaf-paste plastered over it and bound on like a poultice. The action of the herb is to prevent inflammation, with all its consequent pain and suppuration, thus ensuring immediate healing. Another herb used under like circumstances is the *uGodide* (Jatropha hirsuta), tho dried bulbous root being pulverised and sprinkled on the fresh wound.

Broken Limbs and Sprains.

Broken limbs are not so frequent with this bellicose people as are broken skulls, and yet they must necessarily occur at times, especially from falls. Considering the remarkable lack of inventive genius among the natives, it almost surprises us to find that they had already discovered the use of splints even before the white man's coming. True, it was only a rude contrivance, formed of a couple of split dog's bones, which were firmly bound on each side of the fractured limb and acted well enough. But their main reliance was on certain herbs, which were said to have the wonderful power of "making fractured bones unite." Chief amongst these we note the *uMathunga*

(Cyrtanthus obliquus). The dark-coloured portion of the root below the bulb was dried, pulverised, and rubbed into incisions made at the seat of breakage. Equally effective, and applied in the same way, is the herb *uNgwaleni* (Cluytia pulchella). Others employ the root-bark of the coast-tree *umNqandane wempisi* or *inDodemnyama* (Royena villosa) along with the root of *uMathunga* as above; roast both on a pot-lid till dry, pulverise, and rub into incisions as before.

For simple sprains (notwithstanding that the natives frequently refer to these also as breakages or *ukwaphuka*) the *uNyenya* (Rhamnus prinoides) and the iridaceous *inDawoluwatha* are used as embrocations.

Snake-bite.

The treatment of snake-bite must always hold an important place in the medicine of the aborigines of a snake-infested country like Zululand and Natal. It has been asserted by European experts over and over again that snake-poison, when taken into the system through the stomach, is harmless and inert, and yet, as far as I can discover, the homœopathic principle reigns supreme among all those races of mankind that have been born and reared amongst snakes, and the antidote is taken through the mouth. The orthodox antidote of the Zulu doctor, no less than of the Indian of Brazil, is the snake itself, and by preference the very snake that has bitten, or, if this be unprocurable, another of its species.

There are venomous snakes of several distinct kinds in South Africa, each with its own peculiar poison, and demanding its own peculiar treatment. There are the colubrine black (Dendraspis angusticeps) and the green *iMambha*; the vipers, *iBhululu*, or puff-adder (Bitis arietans) and the *uMaqandalingophi*—all lethal snakes; and the naias or so-called cobras, *imFezi* and *iPhimpi*, scarcely less poisonous.

A native snake-specialist would keep a regular supply of the dried bodies—the head, bile, liver, heart and lungs—of

all these, to be ground into powder and administered by the mouth on demand. It is seriously averred that some native doctors have so saturated their blood with these poisons by frequent small doses as to become at length absolutely immune to any kind of snake-bite.

No doubt these animal antidotes of the natives would be more effective if it were possible to inject them into the blood more directly than through the alimentary canal. The South American Indian is fully aware of this, and the Zulu doctor has already an inkling of the fact, and is even now, in his rude way, making a manifest effort (as we shall presently see) to find some readier access to the blood than through the mouth. Personally, I believe that the future will prove the native theory to be correct, that snake-poison is assimilable through the stomach, and can both cure from and immunise against the effects of bite, and that the secret of success lies only in the proper method of administration, chiefly as regards the timeliness of application and the quantities to be taken.

European experts have not yet advanced one inch on the Kafir in discovering any more certain antidote than the snake-poison itself. They supplement their serum (anti-venom), hypodermically injected, with chloride of gold or of lime, strychnine, ammonia and permanganate of potash; and the native doctor supplements his dried snake-head and bile with innumerable plant-remedies.

Smith, in his 'South African Materia Medica,' mentions the *iMunyane* (Leonotis leonurus) and the *umCwili* (L. ovata) as the most powerful remedies known in the Cape Colony. The knowledge, he says, was carried there by the Fingo refugees, and these, we know, came from Natal and Zululand. The Zulu doctors are well aware of the powers of these plants, and they even believe that, when sprinkled in decoction about a kraal, they will keep snakes away. But I have not heard that they are regarded by them as the best snake-bite antidotes. Indeed, I find the Zulus rarely like to rely on any single remedy; they are more accustomed to mix

together a large number of reputed cures, although naturally any single plant would be used if others were wanting.

The method of one Zulu doctor was to mix a quantity of the ground root of the *isiThumana* (Solanum capense) with another of pulverised snake, and give the sufferer to drink. Another compounded together the roots of the *isiThumana*, the roots or green fruit (excepting shell) of the *umHlala* (Strychnos spinosa), the roots of the *iMunyane* (Leonotis leonurus), and other plants, made therewith a hot infusion in about a quart of water, gave the major portion to drink as an emetic, then, taking himself a mouthful of the remainder, set about vigorously biting the patient (so as to draw blood) in all parts of the body, allowing, as he did so, the medicine in his mouth to enter the wound. This is the nearest approach the Zulu doctor has made to subcutaneous injection.

The fatal action of snake venom seems in some species, as with the mambas, to be that of a nerve poison, with consequent paralysis and the like; in others that of a blood poison, as probably with the puff-adders; in others, again, perhaps of both combined. Now, the *umHlala* tree is a Strychnos, and its roots or fruit therefore probably contain a certain percentage of that most powerful nerve-stimulant strychnia, which has been proclaimed by Dr. Müller as practically a cure for some, at any rate, of the worst Australian snakes. This is another example of how penetrating the observation and how correct the knowledge may be of these untutored savages in regard to the properties and uses of the numberless medicinal plants surrounding them.

The *isiThumana*, again, is known to be effective in cases of stricture and palsy of the bladder-muscles, so that as a counter-agent to the paralysing action of snake poison it also has been quite rationally selected. What the exact working of the *iMunyane* may be is not so manifest; but inasmuch as it is capable of inducing intoxication and delirium, it also probably carries some property of a nervine character.

Among other plant remedies of high repute, and used as specifics for snake-bite, we may mention the *inKokhane*

climber, of whose leaves a handful are bruised in a hot infusion and drunk. The *umNungwane* (Xanthoxylon capense), being a reputed cure for paralysis, and further, well known as a disinfectant, may also be said to be reasonably used for snake-bite, for which a decoction of the root is employed. A small handful of the six-inch roots of the *umEmbesa* shrub may be pounded in a quart or so of hot water and drunk. The roots from four plants of the *isiDikili* (Lasiosiphon sp.) may be crushed and thoroughly boiled so as to leave a pint of liquid, which is drunk. Of the *umQaqongo* (Clerodendron glabrum) a quantity of the roots may be pounded, made into an infusion, and drunk—this remedy being especially indicated in cases of *mamba* bite.

The shrub Cassia occidentalis, as also the climber Ipomœa ficifolia, are other notable *iziHlungu* or snake-bite antidotes. Of the former a double handful of the leaves and stalks are pounded together with the pips of one green *umHlala* fruit (otherwise one foot length of the root), mixed in one cupful of cold water and drunk. Of the latter a similar quantity of the leaves may be taken and administered in the same way, a portion of the liquid being used also to bathe the wound. The *iPhombhane* runner and the roots of the *uMayime* (Clivia miniata) are likewise employed for this same purpose.

Most of these plants work as emetics, in which kind of treatment the natives somehow place great reliance.

Vermin-Killers.

There are a few good plants used as vermin-killers. Among those used for destroying lice on the head we have the pea-like *uQwengu* or (N) *iLozane* (Tephrosia macropoda and diffusa), and the shrubs *umEmbhesa* and *iNyathelo* or *uHlonyane* (Vernonia woodii). The modes of preparation are various, sometimes the roots being boiled and the head washed in the decoction, at others a paste is made of the

ground roots or pounded leaves and well rubbed into the hair.

For the destruction of maggots in cattle-sores the sovereign remedy is the *umKhiphampethu* (Calpurnia lasiogyne). The bulb of the *iLabatheka* (Hypoxis latifolia) is ground and placed in food for the destruction of all small vermin.

Alcoholism.

So up-to-date have the Zulu doctors become that they actually have a cure for inebriates (vide my Zulu-English Dictionary under *isiDakwa*), as well as remedies for the shivering fits, *umQhuqho* or (N) *umZuzo*, and the alcoholism (*uValo*) following habitual inebriation. These shivering fits are a curious feature in native alcoholic poisoning. Some natives get them invariably, even after a "reasonable" indulgence, and none are safe from them if they go to habitual excess. The whole body trembles, the teeth chatter, and since the patient is invariably found huddling over a fire, we may assume that he experiences a sensation of intense cold. In a word, the symptoms so far are identical with those manifested in malarial fever. But beyond this shivering fit the attack rarely goes. I have never heard among the raw Zulus of a case of absolute delirium,[1] although they do at times get as far as a state of nervous collapse, showing itself in an abnormal timidity or restlessness. I should therefore suppose that this *umQhuqho* or *umZuzo* must be a mild variety of alcoholism peculiar to Kafir beer or Kafir corn poisoning, since among European inebriates we do not hear of such shivering.

Hair-Restorer.

Certain African races regard hair-dyeing as a very necessary improvement of their physical beauty. Although the Zulu women have the habit of regularly colouring the hair with

[1] This does not refer to the *isiShimeyana* (treacle-mead) drinkers of Natal, among whom I have found several cases of delirium.

red ochre, they have not yet discovered an actual dye. But if they have not yet got as far as hair-dyes, they are already possessed of a hair-restorer. Several diseases cause a falling out of the hair of the head. To remedy this and render the hair strong and its growth vigorous, they use a wash made of the pounded leaves of the *uFukuzela* herb (Ocimum obovatum).

Conclusion.

I have now completed a list of some 240 Zulu medicinal plants, giving what the natives believe to be their properties and the manner in which they use them. This may be about as many as a good average native doctor will be acquainted with. But it is far from being all. There are perhaps another 240 named medicinal plants, of equal value, used in different parts of Zululand and Natal, but not included here; and there is certainly quite another 240 which, although possessing valuable curative qualities, have no distinguishing native names, being simply referred to by the generic terms, such as *iKhambhi* (medicinal herb), *isiPhungo* (cough-cure), *umHlabelo* (embrocation), *isiHlungu* (snake-antidote), and so on. It is probable that we should not be far wrong if we calculated the medicinal plants of Natal and Zululand, already known to the natives, as being somewhere about 700 in all.

So much, I think, will suffice for this, as I believe, the first published contribution to the Zulu materia medica. A good deal of investigation in this entertaining and, indeed, profitable subject remains still to be done, especially in regard to the botanical identification of the various remedial plants, the exact symptoms they are capable of relieving, and the proper doses in which they should be administered. But what I have written here—the result of long, extensive and difficult research—will at any rate point out the way to those desirous of prosecuting still further inquiries into the domain of South African medicine and medical plants; and will prove to us, moreover, that the native doctor, though still indeed groping in the darkness of profound ignorance, is nevertheless groping along quite in the right direction.

[The following lists have been compiled from Father Bryant's article, since they will summarize in a convenient form the results obtained. They will also clearly show the gaps in our knowledge of the botanical identification of the native drugs.

It is highly desirable that a competent chemist should undertake an investigation into the active principles of the more important drugs herein enumerated; and all possible assistance in the supply of material or information would be gladly rendered by the Natal Museum.—EDITOR.]

TABLE OF ZULU MEDICINAL PLANTS ARRANGED IN BOTANICAL ORDER.

Order RANUNCULACÆ.

Latin name.	Native name.	Portion used.	Use.	Page.
Ranunculus pinnatus *Poir.*	uXhaphozi	Leaves	Catarrh, etc.	34
Ditto	,,	,,	Urinary complaints	49
Ditto	,,	,,	Venereal diseases (syphilis)	51
Ranunculus sp.	isiShoshokazana	,,	Catarrh, etc.	35

Order MENISPERMACEÆ.

Cissampelos torulosa *E.M.*	umThombho	—	Venereal diseases	51
Ditto	,,	Roots	Toothache	69
Ditto	,,	Leaves	Scrofula	18

Order CRUCIFEREÆ.

Lepidium capense *Thb.*	uMathoyisa	Tuber	Catarrh, etc.	34

Order BIXINEÆ.

Dovyalis rhamnoides *B. & H.*	umNyezane	Roots and bark	Rheumatism	58
Trimeria alnifolia *Planch.*	iDlebelendlovu	Leaves	Stomach and intestinal complaints	23

Order PITTOSPOREÆ.

Pittosporus viridiflorum *Sims*	umFusamvu	Bark	Febrile complaints	44

Order Polygaleæ.

Latin name.	Native name.	Portion used.	Use.	Page.
Polygala sp.	iThethe	—	Scrofula	18
Polygala oppositifolia *Linn.*	,,	Roots	,,	17

Order Capparideæ.

Capparis corymbifera *E.M.*	iQwaningi	Roots	Chest complaints (pleurisy)	38
Ditto	,,	,,	Impotency and barrenness	53
Ditto	,,	Bark of root	Scrofula	17
Ditto	,,	Root	Chronic coughing	40
Capparis gueinzii *Sond.*	uMabusana	—	Chest complaints (expectoration of blood)	41

Order Hypericineæ.

Hypericum æthiopicum *Thunb.*	uSukumbhili	—	Poisonous	12
Ditto	,,	Roots	Urinary complaints (backache, etc.)	48

Order Malvaceæ.

Hibiscus surattensis *Linn.*	uCathucathu	Leaves and stalks	Urinary complaints	50
Ditto	,,	Leaves	Venereal diseases, gonorrhœa, etc.	52

Order Tiliaceæ.

Grewia occidentalis *Linn.*	iKlolo or iLalanyathi	—	Impotency and barrenness	56
Triumfetta rhomboidea *Jacq.*	iNothwane or inDola encane	Roots	,,	56

Order Geranaiaceæ.

Oxalis semiloba *Sond.*	isiThathe or isiNungu	Leaves	Skin diseases (infantile thrush)	66

Order Rutaceæ.

Clausena inæqualis *Bth.*	umNukambhiba	Roots	Tapeworm	22
Ditto	,,	Leaves	Intestinal parasites—Ikhambi	20
Zanthoxylum capense *Harv.*	umNungwane	Bark of root	Scrofula	17
Ditto	,,	Leaves	Intestinal parasites—Ikhambi	20

Latin name.	Native name.	Portion used.	Use.	Page.
Zanthoxylum capense *Harv.*	umNungwane	Leaves	Stomach and intestinal complaints	23
Ditto	„	Bark of root	Stomach complaints	25
Ditto	„	Root	Chest complaints (chronic coughing)	40
Ditto	„	—	Paralysis	61
Ditto	„	Leaves	Skin diseases (sores)	65
Ditto	„	Root-bark	Toothache	69
Ditto	„	Roots	Snake-bite	74
		Order Ochnaceæ.		
Ochna atro-purpurea *D.C.*	umBomvane	Roots	Gangrenous rectitis	33
		Order Meliaceæ.		
Ekebergia meyeri *Presl.*	umNyamathi	Root	Indigestion and heartburn	24
Ditto	„	Leaves	Intestinal parasites—Ikhambhi	20
Ekebergia capensis *D.C.* or meyeri *Presl.*	„	Root	Chest complaints (coughing)	41
Trichilia emetica *Vahl.*	umKhuhlu or iXolo	—	Very poisonous	13
Ditto	„	Bark	Stomach and intestinal complaints	28
Turræa obtusifolia *Hochst.*	umHlatholana	—	Very poisonous	13
Ditto	„	Bark and leaves	Stomach and intestinal complaints	23, 27
Turræa floribunda *Hochst.*	umVuma	Roots	Heart complaints	59
		Order Olacineæ.		
Apodytes dimidiata *E.M.*	umDakane	Root-bark	Intestinal parasites—Ikhambi	20
Pyrenacantha scandens *Planch.*	umSekelo	Roots	Impotency and barrenness	56
Ximenia caffra *Sond.* (Natal plum)	umThunduluka	Leaves	Ophthalmia	67
		Order Celastrineæ.		
Celastrus buxi-folius *Linn.*	inGowangane	Roots	Chest complaints (pleurisy)	38
Celastrus sp.	iHlinzanyoka	„	Chest complaints (chest pains)	40

Latin name.	Native name.	Portion used.	Use.	Page.
Elæodendron velutinum *Harv.*	iNqayi	Bark of roots	Dysentery and diarrhœa	30
Pterocelastrus rostratus *Walp.*	uSahlulamanye	Roots	Spinal disease	61
		Order Rhamneæ.		
Helinus ovata *E.M.*	uBhubhubhu	Roots	Hysteria	64
Rhamnus prinoides *L'Herit.*	uNyenya	—	Sprains	71
Zizyphus mucronata *Willd.*	umPhafa	Bark	Chest complaints (coughing)	41
		Order Ampelideæ.		
Cissus cuneifolia *E. and L.*	isiNwazi	Root	Impotency and barrenness	55, 56
		Order Sapindaceæ.		
Bersama lucens *Szysz.*	isiNdiyandiya	—	Very poisonous	13
Ditto	„	Bark	Impotency and barrenness	55
Cardiospermum helicacabum *Linn.*	uZipho or iKhambhi leziduli	Leaves and stalks	Dysentery and diarrhœa	29
Ditto	„	Leaves	Catarrh, etc.	34
Ditto	„	„	Urinary complaints	49
Ditto	„	„	Venereal diseases (syphilis)	51
Ditto	„	„	Skin diseases (sores)	66
Hippobromus alatus *E. and L.*	uQhume	—	Very poisonous	13
Ditto	„	Roots	Catarrh, etc.	34
Sapindus oblongifolius *Sond.*	iGololenkawu	„	Dysentery and diarrhœa	30
		Order Anacardiaceæ.		
Sclerocarya caffra *Sond.*	umGanu	Bark	Gangrenous rectitis	32
		Order Leguminosæ.		
Albizzia fastigiata *Oliv.*	uSolo	—	Very poisonous	13
Ditto	„	Bark and roots	Skin diseases (eczema)	66
Ditto	„	Root	Ophthalmia	67
Argyrolobium marginatum *Bohns.*	inTondo	Roots	Hiccough through stomach disorders	24
Ditto	„	Tubers	Stomach sickness	25

Latin name.	Native name.	Portion used.	Use.	Page.
Abrus precatorius *Linn.*	umKhokha	Leaves or roots	Chest complaints (pleurisy)	39
Alysicarpus wallichii *Wight and Arn.*	inKonazana	Roots	Febrile complaints	44
Calpurnia lasyogyne *E. M.*	umKhipham-pethu	—	Maggots in cattle sores	75
Cassia occidentalis *Linn.*	—	Leaves and stalks	Vermin-killer	75
Crotalaria sp.	uMayehlezana, or uSi	Roots	Chest complaints (chronic coughing)	41
Elephantorhiza burchelli *Bth.*	inTolwane	Interior of roots	Dysentery and diarrhœa	29
Ditto	,,	Roots	Febrile complaints	45
Elephantorhiza sp.	umDabu	,,	Heart complaints	59
Erythrina caffra *Thb.*	umSintsi	Leaves	Urinary complaints	49
Ditto	,,	,,	Venereal diseases (syphilis)	51
Ditto	,,	,,	Earache	68
Eriosema cordatum *E.M.*	uQontsi	Roots	Impotency and barrenness	53
Indigofera sp.	isiKhubabende	Root	Dysentery and diarrhœa	30
Psoralea pinnata *Linn.*	umHlonishwa	Roots	Hysteria	64
Rhynchosia sp.	uKhalimele	—	Catarrh, etc.	35
Schotia brachypetala *Sond.*	umGxamu or iHluze	Roots	Dysentery and diarrhœa	39
Tephrosia kraussiana *Meisn.*	inTsangwana	,,	Chest complaints (chronic coughing)	40
Tephrosia macropoda *E.M.* and diffusa *E.M.*	uQuengu or iLozane	—	Very poisonous	12
Ditto	,,	Root	Febrile complaints	46
Ditto	,,	—	Skin diseases (sores)	65
Ditto	,,	Roots and leaves	Vermin-killer	74
	Order Rosaceæ.			
Rubus rigidus *Smith*	iJingyolo	Root	Dysentery and diarrhœa	30
Agrimonia eupatoria *Linn.*	uMakhuthula	Leaves	Tape-worm	22
	Order Crassulaceæ.			
Crassula rubicunda *E.M.*	isiKelekhlane	—	Dysentery and diarrhœa	30

Latin name.	Native name.	Portion used.	Use.	Page.
Order Haloragæ.				
Gunnera perpensa *Linn.*	uGobo	Root	Urinary complaints	50
Ditto	„	—	Impotency and barrenness	56
Ditto	„	Root	Rheumatism	58
Order Melastomaceæ.				
Dissotis incana *Naud.*	imFeyesele or imFeyenkala	Leaves	Dysentery and diarrhœa	30
Order Passifloreæ.				
Ophiocaulon gummifera *Hk. f.*	imFulwa	—	Very poisonous	12
Ditto	„	Root	Febrile complaints	45
Order Cucurbitaceæ.				
Cucumis hirsutus *Sond.*	uThangazana	—	Very poisonous	13
Ditto	„	Roots	Chest complaints (chronic coughing)	40
Luffa sphærica *Sond.*	uSelwa	Leaves or roots	Stomach complaints	25
Momordica involucrata *E.M.*	inTshungwana yehlathi	—	Stomach and intestinal complaints	25
Momordica fœtida *Schum.*	inTshungu	—	Stomach and intestinal complaints	25
Order Ficoideæ.				
Mesembryanthemum sp.	iKhambhi lamabulawo	Leaves	Heart complaints	59
Order Umbelliferæ.				
Heteromorpha arborescens *Ch. and Sch.*	umBangandlala	Leaves	Scrofula	18
Lichtensteinia interrupta *E.M.*	inTlashane	Roots	Chest complaint (chronic coughing)	40
Order Araliaceæ.				
Cussonia spicata *Thb.*	umSenge	Roots	Febrile complaints	44
Order Rubiaceæ.				
Oldenlandia decubens *Hiern.*	uMampeshana	Roots	Chest complaints and heart disease	42, 59

Latin name.	Native name.	Portion used.	Use.	Page.
Petanisia variabilis *Harv.*	iCimamlilo	Roots	Piles	31
Ditto	„	„	Gangrenous rectitis	33
Ditto	„	—	Rheumatism	58
Plectronia ventosa *L.*	umVuthwamini	Leaves	Stomach and intestinal complaints	23
Ditto	„	„	Dysentery and diarrhœa	29
Rubia cordifolia *Linn.*	imPindisa	Roots	Impotency and barrenness	53, 54
Spermacoce natalensis *Hochst.*	isiMuyisane	„	Gangrenous rectitis	33
Ditto	„	„	Febrile complaints	46
Vangueria lasiantha *Sond.*	uDulmuthwa	Leaves	Dysentery and diarrhœa	30
		Order Compositæ.		
Artemisia afra *Jacq.* (wormwood)	umHlonyane	Leaves	Febrile complaints	45
Aster asper *Less.*	uDlutshana	Roots	Very poisonous	12
Ditto	„	„	Stomach complaints	23
Ditto	„	„	Chronic coughing	40
Ditto	„	„	Chest complaints	42
Aster erigeroides *Harv.*	isiThelelo	Leaves	Intestinal parasites	20, 23, 28
Berkheya sp.	uLimilwenkomo or uLimilwenyathi	Roots	Urinary complaints	49
Ditto	uShaqa	„	Rheumatism	58
Ditto	„	Leaves and roots	Skin diseases (sores)	65
Ditto	„	Leaves	Ophthalmia	67
Bidens pilosa *Linn.*	uQadolo	Leaves or roots	Stomach complaints	25
Brachylæna discolor *D.C.*	iPhahla	Leaves	Intestinal parasites	20
Callilepis laureola *D.C.*	imPila	—	Very poisonous	12
Ditto	„	—	Virulent poison	27
Ditto	„	Root	Tape-worm	22
Conyza incisa *Ait.*	uMachakazi	Leaves	Catarrh, etc.	34
Ethulia conyzoides *Linn.*	umSokosoko	—	Intestinal parasites	20
Ditto	„	—	Stomach complaints	25
Gerbera kraussii *Sch. Bip.*	uHlambhihlo-shane	Leaves	Tape-worm	22
Ditto	„	„	Stomach-ache	25

Latin name.	Native name.	Portion used.	Use.	Page.
Mikania capensis *D.C.*	umDlonzo	Leaves	Urinary complaints	49
Ditto	„	„	Venereal diseases	51
Othonna natalensis *Sch. Bip.*	iNcamu	—	Tape-worm	22
Ditto	„	Roots	Stomach and intestinal disorders (nausea)	24
Osteospermum nervatum *D.C.*	uMasigcolo	—	Stomach and intestinal complaints	24
Ditto	„	Roots	Febrile complaints	43
Senecio speciosus *Willd.*	iBohlolo	Leaves and stalks	Chest complaints	39
Ditto	„	„	Dropsy	60
? Tripteris natalensis *Harv.*	uMadintsana	Leaves	Febrile complaints	40
Ursinia tenuiloba *D.C.*	—	Roots	Coughs	40
Vernonia woodii *Hoffm.*	uHlonyane	—	Stomach disorders	25
Ditto	„	Leaves	Catarrh, etc.	34
Ditto	„	Roots	Chest complaints	38
Ditto	„	Leaves	Febrile complaints	44
Ditto	„	Roots or leaves	Vermin-killer	74
Vernonia corymbosa *Less.*	uHlungu-lungu	—	Impotency and barrenness	56
Wedelia natalensis *Sond.*	ubuHlungwana	—	Stomach and intestinal complaints	24
Ditto	„	Roots	Dysentery and diarrhœa	29
Ditto	„	Leaves	Febrile complaints	44
Ditto	„	„	Wounds	70
		Order Myrsineæ.		
Embelia kraussi *Harv.*	iBhinini	Leaves or black berries	Tape-worm	22
Mæsa sp.	uMaguqu	Ripe berries (dried and ground)	Tape-, round-, and thread-worms	22
		Order Ebenaceæ.		
Euclea natalensis *A.D. C.*	isiZimane or iDungamuzi	—	Poisonous	12
Ditto	„	Bark of root	Scrofula	17
Ditto	„	Bark	Intestinal complaints	23, 27
Ditto	„	Root	Chest complaints (pleurisy)	38

Latin name.	Native name.	Portion used.	Use.	Page.
Euclea lanceolata *E.M.* ♀	umShekishane	Bark	Stomach and intestinal complaints	27
Ditto ♂	iDungamuzi	—	Dropsy	61
Royena villosa *Linn.*	unNqandane wezimpisi or inDodennyama	Root	Stomach and intestinal complaints	28
Ditto	„	Roots	Dropsy	61
Ditto	„	Root-bark	Broken limbs and sprains	71
Royena lucida *L.*	umTimatane or isiNywane	—	Impotency and barrenness	55
	Order Asclepiadaceæ.			
Chlorocodon whiteii *Hk. f.*	uMondi	Root	Indigestion	24
Gomphocarpus sp.	iNcohiba	—	Very poisonous	12
Raphionacme sp.	? uMathanjana	Roots	Scrofula	17
Secamone gerrardi *Harv.*	uGobandhlovu	„	Poisonous	13
Ditto	„	„	Spinal disease	61
Stapelia gigantea *N.E.B.*	uZililo	Fleshy stalks	Hysteria	64
	Order Apocynaceæ.			
Rauwolfia natalensis *Sond.*	umHlambhamanzi	Bark of root	Scrofula	17
Ditto	„	Bark	Febrile complaints	46
	Order Loganiaceæ.			
Strychnos henningsii *Gilg.*	umQalothi	—	Tape-worm	22
Ditto	„	Bark	Stomach and intestinal complaints	24
Ditto	„	„	Rheumatism	58
Strychnos spinosa *Lam.*	umHlala	Roots or green fruit	Snake-bite	73
	Order Convolvulaceæ.			
Ipomœa ficifolia *Ldl.*	umKhokha wehlathi	Leaves	Intestinal complaints	26
Ditto	—	„	Snake-bite	74
Ipomœa purpurea *Roth.*	iJalambhu or iJalamu	Root	Stomach and intestinal complaints	26
Ipomœa palmata *Forsk.*	uMaholwana	Leaves	Febrile complaints (rash)	46

Order Solanaceæ.

Latin name.	Native name.	Portion used.	Use.	Page.
Datura stramonium *Linn.*	iYoli	Leaf	Skin diseases (wounds and sores)	66
Solanum capense *L.F.*	isiThumana	Roots	Urinary complaints	49
Ditto	„	„	Venereal diseases (syphilis)	51
Ditto	„	Leaves	Ophthalmia	67
Ditto	„	—	Toothache	69
Ditto	„	Root	Snake-bite	73
Solanum melongena *Linn.*	umThuma	—	Venereal diseases (syphilis)	51
Solanum sodomœum *Linn.*	„	Root-bark	Impotency and barrenness	56
Withania somnifera *Don.*	ubuVimbha	Roots	Gangrenous rectitis	33
Ditto	„	—	Venereal diseases (syphilis)	51
Ditto	„	Leaves	Skin diseases (wounds and sores)	65

Order Scrophulariaceæ.

Bopusia scabra *Presl.*	inKunzi or iBheja	Leaves	Stomach and intestinal complaints	23
Ditto	inKunzi, iBheja or uGweje	Roots	Gangrenous rectitis	33
Ditto	inKunzi or iBheja	Inner root-bark	Febrile complaints (enteric fever)	46
Ditto	„	Roots	Skin diseases, etc. (body sores)	65

Order Pedalineæ.

Ceratotheca triloba *E.M.*	uDonqabathwa	—	Stomach and intestinal complaints	25

Order Verbenaceæ.

Clerodendron glabrum *E.M.*	umQaqongo	Leaves	Intestinal parasites—Ikhambhi	20
Ditto	„	„	Tape-, round-, and thread-worms	22
Ditto	„	Roots	Dropsy	60
Ditto	„	„	Snake-bite	74
Lippia asperifolia *Rich.*	umSuzwane	Leaves	Gangrenous rectitis	34
Ditto	„	„	Febrile complaints (measles)	46
Priva leptostachya *Juss.*	isiNama	Seeds	Skin diseases (sores and wounds)	66
Ditto	„	Leaves	Ophthalmia	67

Order Labiatæ.

Latin name.	Native name.	Portion used.	Use.	Page.
Leonotis leonurus *Brown*	iMunyane	Leaves	Catarrh, etc.	34
Ditto	„	—	Snake-bite	72
Ditto	„	Roots	„	73
Leonotis ovata *Spreng*	umCwili	—	„	72
Moschosma riparia *Hochst.*	iBoza	Roots	Dropsy	60
Ditto	„	Leaves	Chest complaints (expectoration of blood)	41
Ditto	„	—	Stomach disorders	25
Ocimum obovatum *E.M.*	uFukuzela	Leaves	Hair-restorer	76

Order Amarantaceæ.

Achyranthes avicularis *E.M.*	isiNama	—	Stomach and intestinal complaints (nausea)	24
Ditto	„	Roots	Febrile complaints	43
Pupalia sp.	isiNama esibomvu sehlathi	Flowers	Impotency and barrenness	55

Order Phytolaccaceæ.

Phytolacca abyssinica *Hoffm.*	uMahedeni	—	Febrile complaints	45
Ditto	uMahedeni or inGubivumile	Leaves	Poisonous; urinary diseases	12, 47

Order Polygonaceæ.

Emex spinosa *Campd.*	inKunzama	—	Stomach and intestinal complaints	25
Polygonum serrulatum *Lag.*	—	Leaf	Skin diseases (sores)	66
Rumex ecklonianus *Meisn.*	iDololenkonyane	Roots	Tape-worm	22

Order Laurineæ.

Ocotea bullata *E.M.* (stinkwood)	? uNukani	Bark	Urinary complaints	50

Order Thymeleaceæ.

Lasiosiphon sp.	isiDikili	Roots	Febrile complaints (smallpox)	46
„	„	„	Ophthalmia	67
„	„	„	Snake-bite	74

Order Euphorbiaceæ.

Latin name.	Native name.	Portion used.	Use.	Page.
Acalypha peduncularis *Meisn.*	uSununundu	Roots	Chest complaints; expectoration of blood	41
Antidesma venosum *E.M.*	isiBangamlotha	Leaves	Stomach and intestinal complaints	23
Cluytea pulchella *Linn.*	uNgwaleni	,,	Stomach-ache	25
Ditto	,,	,,	Dysentery and diarrhœa	30
Ditto	,,	—	Broken limbs and sprains	71
Croton gratissimum *Burch.*	uMahlabekufeni	Bark	Very poisonous	13
Ditto	Ditto	,,	Stomach and intestinal complaints	26
Ditto	Ditto	,,	Chest complaints (pleurisy)	39
Ditto	Ditto	,,	Uterine disorders	52
Ditto	Ditto	,,	Dropsy	61
Croton sylvaticum *Hochst.*	umZilanyoni	,,	Very poisonous	13
Ditto	,,	,,	Stomach and intestinal complaints	26
Ditto	,,	,,	Chest complaints (pleurisy)	39
Ditto	,,	—	Dropsy	61
Jatropha hirsuta *Hoch.*	uGodide	Root	Wounds	70
Ricinus communis *Linn.*	umHlakuva	Roots	Toothache	69
Synadenium arborescens *Hk. f.*	umDlebe	—	Very poisonous	12
Ditto	,,	Leaves	Catarrh, etc.	34

Order Urticaceæ.

Chætachme meyeri *Harv.*	umKhovothi	Root	Toothache	69
Chætachme aristate *Planch.*	,,	Bark	Piles	31
Urtica urens *Linn.*	imBhabazane	—	Impotency and barrenness	53

Order Orchideæ.

Eulophia arenaria *Bohn*	uNdwendweni or iMabeleyongosi	Bulbous roots	Impotency and barrenness	53

Order Hæmodoraceæ.

Sanseviera thyrsifolia *Thb.*	isiKholokotho	Leaves	Earache	68

Order IRIDEÆ.

Latin name.	Native name.	Portion used.	Use.	Page.
Antholyza paniculata *Klatt*	umLunge	Root	Dysentery and diarrhœa	30
Gladiolus ludwigii *Pappe*	isiDwa	„	Impotency and barrenness	54, 57

Order AMARYLLIDEÆ.

Clivia miniata *Regel*	uMayime	Root	Febrile complaints	45
Ditto	„	—	Impotency and barrenness	56
Ditto	„	Roots	Snake-bite	74
Crinum (Natal Lily)	umDuze	Bulb	Scrofula	17
Ditto	„	„	Urinary complaints	50
Cyrtanthus obliquus *Ait.*	uMathunga	„	„	17
Ditto	„	Root	Catarrh, etc.	35
Ditto	„	Bulb	Chest complaints (chronic coughing)	40
Ditto	„	Bulbous root	Scrofulous cough	42
Ditto	„	Root below bulb	Broken limbs and sprains	70
Hypoxis sp.	inKomfe	—	Very poisonous	12
Ditto	inKomfe enkula	Root	Intestinal parasites	20
Hypoxis latifolia *Hook*	iLabatheka	—	Very poisonous	12
Ditto	„	Bulbs	Heart complaints	59
Ditto	„	—	Impotency and barrenness	56
Ditto	„	—	Insanity	65
Ditto	„	Bulbs	Vermin-killer	75
Hæmanthus natalensis *Pappe*	iDumbhi-lika'-ntloyile	Root	Coughing	41
Ditto	„	„	Chest complaints	42

Order DIOSCOREÆ.

Dioscorea rupicola *Kth.*	inKwa	—	Very poisonous	12

Order LILIACEÆ.

Agapanthus umbellatus *L'Herit*	uBani	Roots	Heart complaints	59
Aloe ferox *Miller* (Common Aloe)	umHlaba	Leaves	Venereal diseases (syphilis)	51
Aloe sp.	uMpondonde	Roots	Impotency and barrenness	56
Ditto	„	„	Ophthalmia	67

Latin name.	Native name.	Portion used.	Use.	Page.
Asparagus sp.	isiGobo	Leaves and roots	Chest complaints	39
Bulbine natalensis *Baker*	iBhucu	—	Urinary complaints	49
Ditto	„	Leaves	Skin diseases (eczema)	66
Eucomis undulata *Ait.*	uMakhanda ka'ntsele	—	Urinary diseases	47
Gloriosa virescens *Ldl.*	iHlamvu	Root	Impotency and barrenness	53
Ditto	iHlamvu comfana nentombhazana	Bulbs	„ „ „	57
Scilla rigidifolia *Kth.*	inGcolo, inGcino	—	Very poisonous	12
Ditto	Ditto	Bulb	Rheumatism	58
Smilax kraussiana *Meisn.*	inGqaqabulani, iYali, or uLimilwenyathi	—	Ophthalmia	68
		Order Palmæ.		
Phœnix reclinata *Jacq.*	iSundu	Roots	Chest complaints (pleurisy)	38
		Order Aroideæ.		
Stylochiton sp.	umFana-ka'-sihlanjana	Roots	Earache	68
		Order Cypereæ.		
Cyperus sp.	iBhuma	Root	Impotency and barrenness	53, 56
Cyperus esculentus *Linn.*	inDawo	„	Indigestion	24
Ditto	„	„	Impotency and barrenness	54
		Order Gramineæ.		
Andropogon marginatus *Steud.* (Tambootie grass)	isiQunga	Root	Intestinal parasites—Ikhambhi	20
Eragrostis plana *Nees*	umTshiki	Roots	Impotency and barrenness	54
Imperata arundinacea *Cyr.*	umThente	Root	Hiccough through stomach disorders	24

Table of Zulu Medicinal Plants arranged in Alphabetical Order.

Zulu name.	Botanical name.	Use.	Page.
umBanda	—	Dysentery and diarrhœa	30
umBangandlala	Heteromorpha arborescens *Ch. & Sch.*	Scrofula	18
uBangalala	—	Urinary complaints	50
Ditto	,,	Impotency and barrenness	53
isiBangamlotha	Antidesma venosum *E.M.*	Stomach and intestinal complaints	23
uBani	Agapanthus umbellatus *L'Herit.*	Heart complaints	59
imBhabazane	Urtica urens *Linn.*	Impotency and barrenness	53
isiBhaha	—	Chest complaints (dry cough)	41
Ditto	,,	Febrile complaints	46
Ditto	,,	Urinary complaints	50
Ditto	,,	Rheumatism	58
Ditto	,,	Dropsy	61
iBhinini	Embolia kraussii *Harv.*	Tape-worm	22
Ditto	,,	Catarrh, etc.	34
imBhozisa	—	,,	34
iBhucu	Bulbine natalensis *Baker*	Urinary complaints	49
Ditto	,,	Venereal diseases (gonorrhœa, etc.)	52
Ditto	,,	Skin diseases (eczema)	66
iBhuma	Cyperus sp.	Impotency and barrenness	53, 56
uBhubhubhu	Helinus ovata *E.M.*	Hysteria	64
iBohlololo	Senecio speciosus *Willd.*	Chest complaints (pleurisy)	39
iBohlololo or inZwabuhlungu	,,	Dropsy	60
umBomvane	Ochna atropurpurea *D.C.*	Gangrenous rectitis	33
iBoza	Moschosma riparia *Hoch.*	Stomach disorders	25
Ditto	,,	Chest complaints (expectoration of blood)	41
Ditto	,,	Dropsy	60
iBuba	—	Syphilis	51
uCathucathu	Hibiscus surattensis *Linn.*	Urinary complaints	50
Ditto	,,	Venereal diseases (gonorrhœa, etc.)	52
iCimamlilo	Pentanisia variabilis *Harv.*	Piles	31
Ditto	,,	Gangrenous rectitis	33
Ditto	,,	Rheumatism	58
Ditto	,,	Paralysis	62
umCwili	Leonotis ovata *Spreng.*	Snake-bite	72

Zulu name.	Botanical name.	Use.	Page.
umDabu	? Elephantorhiza sp.	Heart complaints	59
umDakane	Apodytes dimidiata *E.M.*	Intestinal parasites—Ikhambhi	20
inDawo	Cyperus esculentus *Linn.*	Indigestion	24
Ditto	„	Stomach-ache	25
Ditto	„	Impotency and barrenness	54
inDawolucwatha	—	Sprains	71
inDawoluthi emhlophe	Belamcanda sp.	Stomach and intestinal complaints	25
inDawoluthi emnyama	Belamcanda punctata *Moench.*	Hysteria	63
inDawoluthi	—	Catarrh, etc. (headache)	35
isiDikili	Lasiosiphon sp.	Febrile complaints (smallpox)	46
Ditto	„	Ophthalmia	67
Ditto	„	Snake-bite	74
umDlandhlasi	—	Very poisonous	12
Ditto	„	Stomach and intestinal complaints	25
umDlavuza	„	Dysentery and diarrhœa	30
umDlebe	Synadenium aborescens *Hk. f.*	Very poisonous	12
Ditto	„	Catarrh, etc.	34
iDlebelendlovu	Trimeria alnifolia *Planch.*	Stomach and intestinal disorders	23
umDlonzo	Mikania capensis *D.C.*	Urinary complaints	49
Ditto	„	Venereal diseases (syphilis)	51
Ditto	„	Dropsy	61
inDlolothi	—	Very poisonous	12
uDlutshana	Aster asper *Less.*	„	12
Ditto	„	Stomach and intestinal complaints	23
Ditto	„	Catarrh, etc.	34
Ditto	„	Chest complaints (chronic coughing)	40
Ditto	„	Chest complaints (scrofulous coughs)	42
iDololenkonyane	Rumex ecklonianus *Meisn.*	Tape-worm	22
uDonqabathwa	Ceratotheca triloba *E.M.*	Stomach and intestinal complaints	25
uDulamuthwa	Vangueria lasiantha *Sond*	Dysentery and diarrhœa	30
iDumbhi lika'ntloyile	Hæmanthus natalensis *Pappe.*	Chest complaints (coughing)	41
Ditto	„	Chest complaints	42
iDungamuzi	Male of Euclea lanceolata *E.M.*	Stomach and intestinal complaints	27

Zulu name.	Botanical name.	Use.	Page
iDungamuzi	Male of Euclea lanceolata *E.M.*	Dropsy	61
iDungamuzi or isiZimane	Euclea natalensis *A.D.C.*	Very poisonous	12
Ditto	,,	Stomach and intestinal complaints	23, 27
Ditto	,,	Chest complaints (pleurisy)	38
umDuze	Crinum (Natal Lily)	Scrofula	17
Ditto	,,	Urinary complaints	50
Ditto	,,	Rheumatism	58
isiDwa	Gladiolus ludwigii *Pappe.*	Impotency and barrenness	54, 57
umEmbhesa	—	Catarrh, etc. (headache)	35
Ditto	,,	Ophthalmia	67
Ditto	,,	Snake-bite	74
Ditto	,,	Vermin-killer	74
umFana-ka' sihlanjana	Stylochiton sp.	Earache	68
imFeyesele or imFeyenkala	Dissotis incana *Naud.*	Dysentery and diarrhœa	30
uFukuzela	Ocimum obovatum *E.M.*	Hair-restorer	76
imFulwa	Ophiocaulon gummifera *Hk.f.*	Very poisonous	12
Ditto	,,	Febrile complaints	45
umFusamvu	Pittosporum viridiflorum *Sims.*	,,	44
imFuzane	—	Scrofula	18
Ditto	,,	Stomach and intestinal complaints	27
Ditto	,,	Urinary diseases	48
umGanu	Sclerocarya cafra *Sond.*	Gangrenous rectitis	32, 33
inGcolo or inGcino	Scilla rigidifolia *Kth.*	Very poisonous	12
Ditto	,,	Rheumatism	58
Ditto	,,	Insanity	65
uGcusulu	—	Syphilis	51
uGobandlovu	Secamone gerrardi *Harv.*	Very poisonous	13
Ditto	,,	Spinal diseases	61
isiGobo	Asparagus sp.	Chest complaints (pleurisy)	39
uGobo	Gunnera perpensa *Linn.*	Urinary complaints	50
uGobo or uKlenya	,,	Impotency and barrenness	56
Ditto	,,	Rheumatism	58

Zulu name.	Botanical name.	Use.	Page.
uGodide	Jatropha hirsuta *Hoch.*	Wounds	70
iGololenkawu	Sapindus oblongifolius *Sond.*	Dysentery and diarrhœa	30
inGqaqabulani, iYali, or uLimilwenyathi	Smilax kraussiana *Meisn.*	Ophthalmia	68
inGqwangane	Celastrus buxifolius *Linn.*	Chest complaints (pleurisy)	38
inGuduza	—	Stomach and intestinal complaints	28
umGugudo	„	„	25
umGunya	„	Rheumatism, heart complaints, dropsy, etc.	58
umGxamu or iHluze	Schotia brachypetala *Sond.*	Dysentery and diarrhœa	30
umHlaba	Aloe ferox *Miller*	Venereal diseases (syphilis)	51
uHlakahla	—	Impotency and barrenness	56
umHlakuva	Ricinus communis *Linn.*	Earache	68
Ditto	„	Toothache	69
umHlala	Strychnos spinosa *Lam.*	Snake-bite	73
umHlambhamanzi	Rauwolfia natalensis *Sond.*	Scrofula	17
Ditto	„	Febrile complaints (measles, etc.)	46
uHlambhihloshane	Gerbera kraussii *Sch. Bip.*	Tape-worm	22
Ditto	„	Stomach-ache	25
iHlamvu	Gloriosa virescens *Ldl.*	Impotency and barrenness	53, 55
iHlamvu lomfana nentombhazana	„	„	57
umHlatholana	Turræa obtusifolia *Hochst.*	Very poisonous	13
Ditto	„	Stomach and intestinal complaints	23, 27
Ditto	„	Dysentery and diarrhœa	29
isiHlazi	—	Febrile complaints (malarial fever)	46
iHlinzanyoka	? Celastrus sp.	Chest complaints (chest pains)	40
umHlonishwa	Psoralea pinnata *Linn.*	Hysteria	64
umHlonyane	Artemisia afra *Jacq.*	Febrile complaints	45
uHlonyane or iNyathelo	Vernonia woodii *Hoffm.*	Stomach disorders	25
Ditto	„	Catarrh, etc.	34
Ditto	„	Febrile complaints	44
isiHlosa	—	Ophthalmia	67

Zulu name.	Botanical name.	Use.	Page.
iHlule	—	Dysentery and diarrhœa	30
iHlulelemambha	„	Very poisonous	13
Ditto	„	Stomach and intestinal complaints	28
uHlunguhlungu	Vernonia corymbosa *Less.*	Chest complaints (pleurisy)	38
Ditto	„	Impotency and barrenness	56
ubuHlungwana	Wedelia natalensis *Sond.*	Stomach and intestinal complaints (nausea)	24
Ditto	„	Dysentery and diarrhœa	29
Ditto	„	Febrile complaints	44
Ditto	„	Toothache	69
Ditto	„	Wounds	70
umHlwazi	—	Indigestion	24
umHlwazi-mambha	„	Impotency and barrenness	53
iJalambhu or iJalamu	Ipomœa purpurea *Roth.*	Stomach and intestinal complaints	26
Ditto	„	Febrile complaints	44
uJiba	—	Dysentery and diarrhœa	30
iJingijolo	Rubus rigidus *Smith*	„	30
inJobo	—	Round Worms—Ascarids	21
umJuluka	„	Uterine disorders	52
isiKelekehlane	Crassula rubicunda *E.M.*	Dysentery and diarrhœa	30
uKhalimele	Rhynchosia sp.	Catarrh, etc. (headache)	35
iKhambhi lamabulawo	Mesembryanthemum sp.	Heart complaints	59
uKhathwa	—	Hysteria	63
umKhipham-pethu	Calpurnia lasiogyne *E.M.*	Vermin-killer (maggots in cattle-sores)	75
umKhokha	Abrus precatorius *Linn.*	Chest complaints (pleurisy)	39
umKhokha wehlathi	Ipomœa ficifolia *Ldl.*	Stomach and intestinal complaints	26
isiKholokotho	Sanseviera thyrsifolia *Thb.*	Earache	68
umKhovothi	Chætachme aristata *Planch.*	Piles	31
Ditto	„	Toothache	69
isiKhubabende	Indigofera sp.	Dysentery and diarrhœa	30
umKhuhlu	Trichilia emetica *Vahl.*	Very poisonous	13
isiKhumukela	—	Toothache	69
isiKhwa or umWelela	„	Dysentery and diarrhœa	30
Ditto	„	Piles	31
umKhwangu	„	Catarrh, etc.	35

Zulu name.	Botanical name.	Use.	Page.
umKhwangu was'entabeni	—	Intestinal parasites—Ikhambhi	20
iKlolo or iLalanyathi	Grewia occidentalis *Linn.*	Impotency and barrenness	56
inKokhane	—	Febrile complaints (measles and rashes)	46
Ditto	,,	Snake-bite	73
inKomankoma	N. filix-mas *Rich.* or Lastrea inæquale *Hk.*	Extraction of thorns	70
inKomfe	Hypoxis sp.	Very poisonous	12
inKomfe enkula	,,	Intestinal parasites—Ikhambhi	20
inKominophondo	—	Catarrh, etc.	35
inKonazana	Alysicarpus wallichii *Wight & Arn.*	Febrile complaints	44
inKunzana	Emex spinosa *Campd.*	Stomach and intestinal complaints	25
inKunzi or iBheja	Bopusia scabra *Presl.*	,,	23
Ditto	,,	Febrile complaints (enteric fever, smallpox)	46
Ditto	,,	Skin diseases, etc. (body sores)	65
inKunzi or uGweje	,,	Gangrenous rectitis	33
inKuzwa	—	Intestinal parasites—Ikhambhi	20
inKwa	Dioscorea rupicola *Kth.*	Very poisonous	12
iLabatheka	Hypoxis latifolia *Hook*	,,	12
Ditto	,,	Impotency and barreness	56
Ditto	,,	Heart complaints	59
Ditto	,,	Insanity	65
Ditto	,,	Vermin-killer	75
umLahleni	—	Urinary complaints	50
uLethi	,,	Catarrh, etc. (headache)	35
ubuLibazi	,,	Catarrh, etc.	35
uLimilwenkomo or uLimilwenyathi	Berkheya sp.	Urinary complaints	49
Ditto	,,	Ophthalmia	67
umLomomnandi	—	Febrile complaints	45
uLovwane	,,	Very poisonous	12
umLulama	Turræa heterophylla *Sm.*	Rheumatism	58
umLunge	Antholyza paniculata *Klatt.*	Dysentery and diarrhœa	30
uMabilwana	—	Stomach and intestinal complaints	28

Zulu name.	Botanical name.	Use.	Page.
uMabusana	Capparis gueinzii *Sond.*	Chest complaints (chronic coughing)	40
Ditto	„	Chest complaints (expectoration of blood)	41
uMachakazi	Conyza incisa *Ait.*	Catarrh, etc.	34
uMadintsana	? Tripteris natalensis *Harv.*	Febrile complaints	44
uMadlozana	—	Chest complaints (chronic coughing)	40
uMafumbhuka	„	Dysentery and diarrhœa	30
Ditto	„	Spinal diseases	61
uMaguqu	Mæsa sp.	Tape, round and thread worms	22
uMagwanyana	—	Rheumatism	58
uMahedeni	Phytolacca abyssinica *Hoffm.*	Very poisonous	12
Ditto	„	Febrile complaints	45
uMahedeni or inGubivumile	„	Urinary diseases	47
uMahlabathi	—	Tape-worm	22
uMahlabekufeni	Croton gratissimum *Burch.*	Very poisonous	13
Ditto	„	Stomach and intestinal complaints	26
Ditto	„	Chest complaints (pleurisy)	39
Ditto	„	Urinary complaints	50
Ditto	Croton gratissimum *Burch.* and C. sylvaticum *Hochst.*	Uterine disorders	52
Ditto	Croton gratissimum *Burch.*	Dropsy	61
uMahlokoloza	—	Urinary complaints (backache, etc.)	48
Ditto	„	Impotency and barrenness	53
Ditto	„	Dropsy	61
uMaholwana	Ipomœa palmata *Forsk.*	Febrile complaints (rashes)	46
uMakhanda ka'ntsele	Eucomis undulata *Ait.*	Urinary diseases	47
uMakhuthula	Agrimonia eupatoria *Linn.*	Tape-worm	22
uMaluleka	—	Catarrh, etc.	35
uMalusi	„	Stomach and intestinal complaints	28
uMampeshana	Oldenlandia decumbens, *Hiern.*	Chest complaints and heart diseases	42,59
uMankenketha	—	Stomach and intestinal complaints	28
uMaphipha	„	Dysentery and diarrhœa	29
uMasigcolo	Osteospermum nervatum *D.C.*	Stomach and intestinal complaints (nausea)	24
uMasigcolo or inKuphulana	„	Febrile complaints	43

Zulu name.	Botanical name.	Use.	Page.
uMathanjana	? Raphionacme sp.	Scrofula	17, 18
uMathoyisa	Lepidium capense *Thb.*	Catarrh, etc.	34
uMathunga	Cyrtanthus obliquus *Ait.*	Scrofula	17, 18
Ditto	,,	Catarrh, etc.	35
Ditto	,,	Chest complaints (chronic coughing)	40
Ditto	,,	Chest complaints (scrofulous coughs)	42
Ditto	,,	Broken limbs and sprains	70
uMayehlezana or uSi	Crotalaria sp.	Chest complaints (chronic coughing)	41
uMayime	Clivia miniata *Regel.*	Febrile complaints	45
Ditto	,,	Impotency and barrenness	56
Ditto	,,	Snake-bite	74
umMbhezi	—	Stomach and intestinal complaints	25
Ditto	,,	Hysteria	63
uMondi	Chlorocodon whitei *Hk. f.*	Indigestion	24
uMoyawovungu	—	Heart complaints	59
uMpondonde	,,	Impotency and barrenness	56
Ditto	,,	Ophthalmia	67
iMunyane	Leonotis leonurus *Brown*	Catarrh, etc.	34
Ditto	,,	Snake-bite	72, 73
isaMuyisane	Spermacoce natalensis *Hochst.*	Gangrenous rectitis	33
Ditto	,,	Febrile complaints (measles, etc.)	46
isiNama	Achyranthes avicularis *E.M.*	Stomach and intestinal complaints (nausea)	24
Ditto	,,	Febrile complaints	43
Ditto	Priva leptostachya *Juss.*	Skin diseases (wounds and sores)	66
Ditto	,,	Ophthalmia	67
Ditto	,,	Earache	68
isiNama esibomvu schlathi	Pupalia sp.	Impotency and barrenness	55
iNcamu	Othonna natalensis *Sch. Bip.*	Tape-worm	22
Ditto	,,	Stomach and intestinal disorders (nausea)	24
iNcohiba	Gomphocarpus sp.	Very poisonous	12
isiNdiyandiya	Bersama lucens *Szysz.*	,,	13
Ditto	,,	Impotency and barrenness	55
uNdwendweni or iMabelejongosi	Eulophia arenaria *Bolus*	,,	53
uNgazi	—	Dysentery and diarrhœa	29

Zulu name.	Botanical name.	Use.	Page.
uNgazi	—	Spinal diseases	61
uNgibonisele	„	Impotency and barrenness	53, 56
uNgwaleni	Cluytia pulchella *Linn.*	Stomach-ache	25
Ditto	„	Dysentery and diarrhœa	30
Ditto	„	Broken limbs and sprains	71
amaNgwe	—	Very poisonous	12
Ditto	„	Intercostal neuralgia	60
uNjalwana	„	Venereal diseases (syphilis)	51
uNjalwana or iKhambhi lesi-patsholo	„	Impotency and barrenness	53
iNkomankoma	Nephrodium filix-mas *Rich.* (Lastrea inæquale *Hk.*), Nephrodium or Lastrea athamanticum *Hk.*	Tape-worm	22
umNono	—	Stomach and intestinal complaints	25
iNothwane or inDola encane	Triumfetta rhomboidea *Jacq.*	Impotency and barrenness	56
umNqandane wezimpisi or inDodemnyama	Royena villosa *Linn.*	Stomach and intestinal complaints	28
Ditto	„	Dropsy	61
Ditto	„	Broken limbs and sprains	71
iNqayi	Elæodendron volutinum *Harv.*	Dysentery and diarrhœa	30
uNtlangothi	—	Very poisonous	12
Ditto	„	Paralysis	61
uNtliziyonkulu or umuWane	„	Heart complaints	59
umNukambhiba	Clausena inæqualis *Bth.*	Intestinal parasites—Ikhambhi	20
Ditto	„	Tape-worm	22
uNukani	? Ocotea bullata *E. Mey.*	Urinary complaints	50
Ditto	„	Uterine disorders	52
uNungwane	Zanthoxylum capense *Harv.*	Scrofula	17
Ditto	„	Intestinal parasites—Ikhambhi	20
Ditto	„	Stomach and intestinal complaints	23, 25
Ditto	„	Chest complaints (chronic coughing)	40
Ditto	„	Paralysis	61
Ditto	„	Skin diseases, etc. (sores)	65
Ditto	„	Toothache	69
Ditto	„	Snake-bite	74

Zulu name.	Botanical name.	Use.	Page.
isiNwazi	Cissus cuneifolia *E. & Z.*	Impotency and barrenness	55, 56
umNyamathi	Ekebergia meyeri *Presl.*	Intestinal parasites—Ikhambhi	20
Ditto	,,	Indigestion (heartburn)	24
Ditto	Ekebergia capensis *D.C.* or meyeri *Presl.*	Chest complaints (coughing)	41
iNyathelo or uHlonyane	Vernonia woodii *Hoffm.*	Vermin-killer	74
uNyawothi	? Penicillaria spicata *Willd.*	Extraction of thorns	69
uNyenya	Rhamnus prinoides *L'Herit.*	Sprains	71
umNyezane	Dovyalis rhamnoides *B. & H.*	Rheumatism	58
isiPatshola	—	Syphilis	51
imPepho	,,	Ophthalmia	67
umPhafa	Zizyphus mucronata *Willd.*	Chest complaints (coughing)	41
iPhahla	Brachylæna discolor *D.C.*	Intestinal parasites—Ikhambhi	20
uPhico	—	Catarrh, etc. (headache)	35
iPhombhane	,,	Snake-bite	74
amaPhofu	,,	Hysteria	63
umPhuphutho	,,	Gangrenous rectitis	33
imPila	Callilepis laureola *D.C.*	Very poisonous	12
Ditto	,,	Tape-worm	22
Ditto	,,	Stomach and intestinal complaints	27
imPindisa	Rubia cordifolia *Linn.*	Impotency and barrenness	53, 54
imPisikayihlangulwa	—	Urinary diseases	47
uQadolo	Bidens pilosa *Linn.*	Stomach complaints	25
umQalothi	Strychnos henningsii *Gilg.*	Tape-worm	22
Ditto	,,	Stomach and intestinal complaints (nausea)	24
Ditto	,,	Rheumatism	58
umQaqongo	Clerodendron glabrum *E.M.*	Intestinal parasites—Ikhambhi	20
Ditto	,,	Tape, round, and thread-worms	22
Ditto	,,	Dropsy	60
Ditto	,,	Snake-bite	74
amaQate or uBhusha	—	Impotency and barrenness	53
uQhume	Hippobromus alatus *E. & Z.*	Very poisonous	13
Ditto	,,	Catarrh, etc.	34
uQontsi	Eriosema cordatum *E.M.* and E. salignum *E.M.*	Impotency and barrenness	53

Zulu name.	Botanical name.	Use.	Page.
isiQunga	Andropogon marginatus *Steud.*	Intestinal parasites—Ikhambhi	20
iQwaningi	Capparis corymbifera *E.M.*	Scrofula	17
Ditto	„	Chest complaints (pleurisy)	38
Ditto	„	Chest complaints (chronic coughing)	40
Ditto	„	Impotency and barrenness	53
uQwengu or iLozane	Tephrosia macropoda *E.M.* T. diffusa *E.M.*	Very poisonous	12
Ditto	„	Febrile complaints	46
Ditto	„	Skin diseases, etc. (sores)	65
Ditto	„	Vermin-killer	74
uSahlulamanye	? Pterocelastrus rostratus *Walp.*	Spinal diseases	61
isiSefo	—	Dysentery and diarrhœa	30
umSekelo	Pyrenacantha scandens *Planch.*	Impotency and barrenness	56
uSelwa	Luffa sphærica *Sond.*	Stomach complaints	25
umSenge	Cussonia spicata *Thb.*	Febrile complaints	44
uShaqa	Berkheya sp.	Rheumatism	58
uShaqa or uShwawu	„	Skin diseases	65
umShekishane	Female of Euclea lanceolata *E.M.*	Stomach and intestinal complaints	27
isiShoshokazana	Ranunculus sp.	Catarrh, etc.	35
isiSinini	—	Toothache	69
umSintsi	Erythrina caffra *Thb.*	Urinary complaints	49
Ditto	„	Venereal diseases (syphilis)	51
Ditto	„	Dropsy	61
Ditto	„	Earache	68
umSokosoko	Ethulia conyzoides *Linn.*	Intestinal parasites—Ikhambhi	20
Ditto	„	Stomach and intestinal complaints	25
uSolo	Albizzia fastigiata *Oliv.*	Very poisonous	13
Ditto	„	Skin diseases (eczema)	66
Ditto	„	Ophthalmia	67
umSongi	—	Stiff-neck	58
uSukumbhili	Hypericum æthiopicum *Thunb.*	Very poisonous	12
Ditto	„	Urinary complaints (backache, etc.)	48
iSundu	Phœnix reclinata *Jacq.*	Chest complaints (pleurisy)	38
uSununundu	Acalypha peduncularis *Meisn.*	Chest complaints (expectoration of blood)	41

Zulu name.	Botanical name.	Use.	Page.
umSuzwane	Lippia asperifolia *Rich.*	Gangrenous rectitis	34
Ditto	„	Febrile complaints (measles, etc.)	46
uThangazana	Cucumis hirsutus *Sond.*	Very poisonous	13
Ditto	„	Chest complaints (chronic coughing)	40
isiThathe or isiNungu	Oxalis semiloba *Sond.*	Skin diseases (infantile thrush)	66
isiThelelo	Aster erigeroides *Harv.*	Intestinal parasites—Ikhambhi	20
Ditto	„	Stomach and intestinal complaints	23, 28
umThente	Imperata arundinacea *Cyr.*	Hiccough through stomach disorders	24
iThethe	Polygala oppositifolia *Linn.*	Scrofula	17, 18
umThombho	Cissampelos torulosa *E.M.*	„	18
Ditto	„	Venereal diseases (syphilis)	51
Ditto	„	Toothache	69
iThondo	—	Scrofula	18
umThuma	? Solanum melongena *Linn.*	Venereal diseases (syphilis)	51
Ditto	Solanum sodomœum *Linn.*	Impotency and barrenness	56
isiThumana	Solanum capense *L. f.*	Urinary complaints	49, 50
Ditto	„	Venereal diseases (gonorrhœa, etc.)	52
Ditto	„	Ophthalmia	67
Ditto	„	Toothache	69
Ditto	„	Snake-bite	73
umThunduluka	Ximenia caffra *Sond.*	Ophthalmia	67
umTimatane or isiNywane	Royena lucida *L.*	Impotency and barrenness	55
inTlashane	Lichtensteinia interrupta *E.M.*	Chest complaints (chronic coughing)	40
inTolwane	Elephantorhiza burchellii *Bth.*	Dysentery and diarrhœa	29
Ditto	„	Febrile complaints	45
inTondo	Argyrolobium marginatum *Bolus.*	Hiccough through stomach disorders	24
Ditto	„	Stomach sickness	25
inTsangu	Cannabis sativa *Linn.* Wild hemp	Chest complaints (dry cough)	41
inTsangwana	Tephrosia kraussiana *Meisn.*	Chest complaints (chronic coughing)	40
umTshiki	Eragrostis plana *Nees*	Impotency and barrenness	54
inTshungu	Momordica fœtida *Schum.*	Stomach and intestinal complaints	25

Zulu name.	Botanical name.	Use.	Page.
inTshungwana yehlathi	Momordica involucrata *E.M.*	Stomach and intestinal complaints	25
inTsulwa	—	Dysentery and diarrhœa	29
ubuVimbha	Withania somnifera *Don.*	Gangrenous rectitis	33
Ditto	„	Venereal diseases (syphilis)	51
Ditto	„	Skin diseases (sores)	65
umVuma	Turræa floribunda *Hochst.*	Heart complaints	59
umVuthwamini	Plectronia ventosa *L.*	Stomach and intestinal complaints	23
Ditto	„	Dysentery and diarrhœa	29
uXhaphozi	Ranunculus pinnatus *Poir.*	Catarrh, etc.	34
Ditto	„	Urinary complaints	49
Ditto	„	Venereal diseases (syphilis)	51
Ditto	„	Dropsy	61
iXolo or umKhuhlu	Trichilia emetica *Vahl.*	Stomach and intestinal complaints	23, 28
Ditto	„	Kidney disease	48
iYoli	Datura stramonium *Linn.*	Skin diseases (wounds and sores)	66
umZilanyoni	Croton sylvaticum *Hochst.*	Very poisonous	13
umZilanyoni or uMahlabekufeni	„	Stomach and intestinal complaints	26
umZilanyoni	„	Chest complaints (pleurisy)	39
umZilanyoni or uMinya	„	Intercostal neuralgia, rheumatism	60
umZilanyoni	„	Dropsy	61
uZililo	Stapelia gigantea *N.E.B.*	Hysteria	64
isiZimane or iDungamuzi	Euclea natalensis *A.D.C.*	Scrofula	17, 18
Ditto	„	Dysentery and diarrhœa	28
uZipho or iKhambhi leziduli	Cardiospermum helicacabum *Linn.*	„	29
Ditto	„	Catarrh, etc.	34
Ditto	„	Urinary complaints	49
Ditto	„	Venereal diseases (syphilis)	51
Ditto	„	Venereal diseases (gonorrhœa, etc.)	51
Ditto	„	Dropsy	61
Ditto	„	Skin diseases (sores)	66