

On the remedies used by the Caffres to prevent blood poisoning from anthrax / by R. Peel Ritchie.

Contributors

Ritchie, Robert Peel, 1835-1902.
Royal College of Surgeons of England

Publication/Creation

Edinburgh : Printed by Oliver and Boyd, 1887.

Persistent URL

<https://wellcomecollection.org/works/wvmwh4bp>

Provider

Royal College of Surgeons

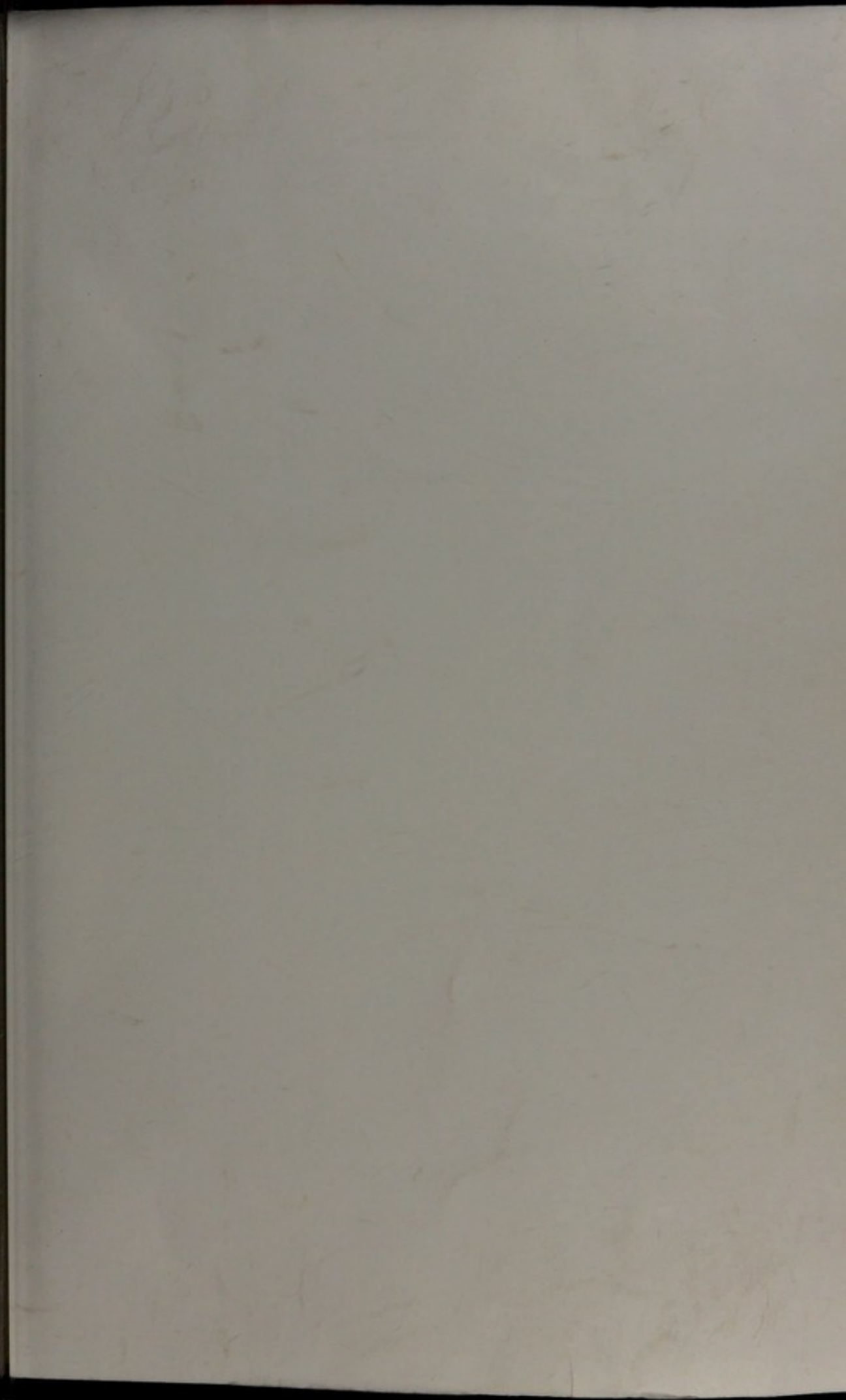
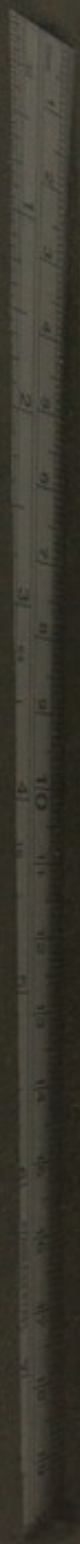
License and attribution

This material has been provided by This material has been provided by The Royal College of Surgeons of England. The original may be consulted at The Royal College of Surgeons of England. where the originals may be consulted. This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

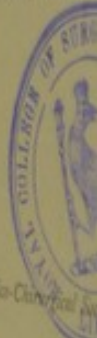


A dispensary in the Life History
of the
13191 622295367
May 26, 2015

Welcome
Home ID

ON THE
REMEDIES USED BY
TO PREVENT
BLOOD POISONING

B. PEEL RITCHIE, M.D., F.R.C.S.
SURGEON-GENERAL
ROYAL EDINBURGH HOSPITAL



Read before the Medical-Chirurgical Society

PRINTED BY OLIVER AND
SON

ON THE

REMEDIES USED BY THE CAFFRES

TO PREVENT

8

BLOOD POISONING FROM ANTHRAX.

BY

R. PEEL RITCHIE, M.D., F. & TREAS. R.C.P.E., F.R.S.E.,

VICE-PRESIDENT MEDICO-CHIRURGICAL SOCIETY, CONSULTING PHYSICIAN
ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN, ETC.



(Read before the Medico-Chirurgical Society of Edinburgh, 4th May 1887.)

PRINTED BY OLIVER AND BOYD, EDINBURGH.

MDCCCLXXXVII.

REPRINTED FROM THE EDINBURGH MEDICAL JOURNAL FOR AUGUST 1887.

REMEDIES TO PREVENT BLOOD POISONING FROM ANTHRAX.

It is now upwards of three years since my friend Mr Frederick Wienand of Bellevue, Bedford, Cape Colony, forwarded to me the two specimens of plants I submit to the Society, but various circumstances delayed me making use of them. The *first* was the difficulty I experienced in getting the plants identified. The *second*, my unsuccessful efforts to learn further particulars regarding their use, or that of other plants or remedies for a similar purpose in other parts of South Africa. None of the books I happened to look into afforded me any information. Mr H. M. Stanley, the African traveller, with whom I communicated when he was last in Edinburgh, could throw no light upon the subject, and to Mr Joseph Thomson it was also unknown. During the time the Forestry Exhibition was open in this city, I tried to learn if the representatives at the South African Court could give me information or identify the plants, but I was again disappointed. Nor was I more successful in my application to the officials at the Botanic Gardens, nor amongst the practical horticulturalists with whom I was acquainted. I then took counsel with a friend in London, who, although himself a good botanist, preferred to submit the specimens at the Botanical Department of the British Museum. In doing so, he unfortunately said they were from South America, and after much unnecessary searching, the report was, they could not find any plant with which they could associate them. Determined not to be left in this very unsatisfactory position, application was again made, and the correct source of the specimens given, and I was ultimately successful in getting them identified.

Since I succeeded in obtaining the names of the plants, I have endeavoured to learn if there was any record of the use of plants by the natives for the like purpose, but I have failed to find any reference. Amongst British natives with whom I have spoken, probably from their having come from other parts of the country, and possibly from their not having been engaged in farming, there

was knowledge neither of the disease nor of its prevention. The veterinary surgeons in this city, from whom I made inquiry, knew nothing of the use of drugs for the purpose, and there is only one authority I know of (from whose book I shall shortly quote), who mentions the eating of the flesh of cattle affected with splenic fever or anthrax. At this stage of the inquiry a new difficulty occurred. On questioning two fleshers engaged at the slaughter-house here in slaughtering and dressing animals, after describing the pathological appearances in cattle dying of splenic fever or anthrax, they said they were quite familiar with them, but they called the disease and knew it amongst themselves as the "black spauld or spauld," and that they had often eaten the flesh of animals dying from it and dressed by themselves. Black spauld being a Scottish term for "quarter ill," or "emphysema infectiosum," did not occur in the books on veterinary medicine I was able to consult, and it is only lately, through the kindness of Principals Williams and Walley, that I have learned full particulars regarding it, and satisfied myself of the distinguishing characteristics between anthrax and "black spauld." From the observations of the practical fleshers I have referred to, I have a fear that animals suffering from anthrax have not only been slaughtered, but that the flesh has also been eaten. On this point, however, Principal Walley informs me "the Edinburgh fleshers know nothing of anthrax. It is most dangerous in every way. We have no proof that quarter ill is ever transmitted to man, and the sound parts of carcase are used as human food with impunity; the infected fluids do not even kill cattle if introduced directly into the blood." I think it right to state that I am informed by the authorities at the slaughter-house, that the flesh of cattle affected with quarter ill is condemned, and that the carcase affected with anthrax is destroyed by fire.

My conversation with the fleshers has also delayed me in submitting the specimens to the Society, for, if these men have killed, dressed, and eaten anthrax animals with impunity, and without the previous use of an antidotal remedy, then possibly the South African Caffres might do the same?

The recent allusions to anthrax in the House of Commons, and the ignorance regarding it as shown by the occurrence of cases in Cheshire, in "repeated outbreaks," make this a suitable time to bring the subject before you.

When Mr Wienand visited me, in course of conversation the subject of splenic apoplexy came up. He stated that it was very common in some parts of South Africa, especially so in his neighbourhood, and caused the rapid death of many oxen. He also alleged that the native Caffres feasted to gorging on the carcasses after a certain form of protecting themselves from the virus had been gone through. Mr W. promised on his return to Cape Colony to try and obtain specimens of the plants the natives

used, and to send them to me. The quantity sent was, however, too small for experiment had the opportunity offered, at least until the specimens had been authenticated.

The following are Mr Wienand's observations accompanying the specimens. He writes from Bedford, Cape Colony:—

“By a friend I send you two different herbs, which the natives use in cases of blood poisoning from animals that die from splenic affection. I have obtained them at great trouble and expense, as the natives are very loth to give information on these subjects, and their cure is really a marvellous one. The two are to be kept separately, each being a distinct cure in itself. The one without the yellow flower (*Teucrium Capense*) is a good antidote for snake bites as well.

“The herbs are bruised when green, for they are always to be had, and infused in cold water, of which copious draughts are taken. To my knowledge, it has never been tried to cure cattle, there is no time for it. An apparently healthy animal drops down dead and is shunned by everybody, and if dogs feed on it they also die; but if a *native specialist* is comeatible he is sent for; a throng in the meantime approaches the carcase, and the doctor administers a draught to each individual, after which the animal is skinned, boiled, and devoured amidst great rejoicings. Blood poisoning only occurs when in ignorance such an animal is skinned or the meat handled.”

The plants which I now show belong to different Natural Orders,—the one to the Labiatae, said by Mr Wienand to be also a good antidote for snake bites, has been identified at the British Museum as the *Teucrium Capense* (Thunberg); the other is a Composite plant, named by the same authority as the *Matricaria vigellæfolia*, D. C. Before receiving this information, it seemed to me to have the characters of an *Artemisia*, but these two genera are not very remote.

Of our British species of *Matricaria*, two at least are recognised to have pharmaceutic properties, namely, the *Matricaria Parthenium*, the feverfew, and the *Matricaria Chamomilla*, the wild chamomile, which is sometimes substituted for the *Anthemis nobilis* in the preparation of oil of chamomile.

Of the Labiate plant, the *Teucrium*, as possessing medicinal properties, there is no great record. The best known British species, the *Teucrium Scorodonia*, the wood sage, and *T. Chamædrys*, have aromatic and bitter tonic properties.

Regarding the properties of the plants I show, nothing is known at the British Museum Botanical Department.

The points I desire to direct attention to in Mr Wienand's statement are—

1st. That until protected by the infusion of the herbs, the natives shun the carcase of the anthrax affected animal.

2nd. If dogs feed on the raw flesh they die.

3rd. That blood poisoning occurs only when in ignorance such an animal is skinned or the meat handled without precautions.

4th. But after copious draughts of the infusions in cold water have been taken, the carcass is approached with freedom, and skinned and cut up.

5th. That after being boiled it is devoured with great rejoicings.

6th. That my correspondent is not aware of the diseased animal being dosed with the drugs during life, because there is no time for it.

Upon these points the following observations occur to me, but I premise them by this statement regarding the transmitter of the information.

Mr Wienand is a native of Cape Colony. He is an extensive landowner, and possesses a large amount of stock in cattle, sheep, and ostriches. He is a very intelligent man, not likely to be readily misled in his judgment, his mind being enlarged by travel, and he has, moreover, a thorough knowledge of the native Caffres. The information he supplies is likely to be reliable therefore. As evidence of his intelligence and stock-rearing ability, it may be added that in one year (1883), at the Agricultural Exhibition, he "was very successful, taking 17 prizes, 14 of which were first class for stock, heading the list of competitors by a long way."

Of the danger attending contact with the dead animal the natives are well aware. That this is great, the statement that unprotected men and dogs are affected proves that it is so. Dogs eating the uncooked flesh die. It is important to note this, for if the operator on the dead animal is protected by draughts of the infusions, he can cut up the animal apparently with impunity. It is upon this statement that the evidence of protection depends, for after the animal is cut up *and cooked*, we know from home evidence the meat may be eaten without injurious result.

The fact that the treatment has not been applied to the diseased animal does not, it seems to me, have much bearing on the present inquiry. If there had been evidence that after administration the animal survived, the proof would not have been great, for it might be alleged, readily and feasibly, that the animal had not suffered from splenic fever or anthrax. This evidence would be therefore of doubtful import.

The real point of importance is that without protection there is great danger, and after taking the remedy there is apparently none.

Cooking the flesh of an anthrax affected animal destroys the vitality of its bacillus. Once it is in the pot, the meat may be eaten after cooking with impunity. This I learned from the fleshers; and since my attention has been directed to the subject, my friend Mr Alex. Inglis M'Callum, V.S., favoured me with the perusal of the excellent work by Principal William Robertson, Professor of Hippopathology in the Royal Veterinary College, London, *A Text-*

Book of the Practice of Equine Medicine, 1883. He gives a full and excellent account of anthrax, its history, literature, geographical distribution, and pathology.

I quote the following from his book (page 183) as to the introduction of the disease by ingestion:—"Deductions derived from experiment and the behaviour of the bacillus anthracis in relation to artificially produced disease, compel us to subscribe to the theory of its being communicable by the alimentary tract, the air-passages, or by cutaneous inoculation, and, though generally fixed, the virus may be more rarely volatile, that it is transmissible is now beyond dispute." He further remarks: "To the condition of receptivity of the species and individual we are inclined to attach the utmost importance, and from our observation we are led to look to this for much explanation as to the apparently erratic behaviour of the anthrax virus."

After referring to the effects of temperature on the vitality of the filaments and spores, he states at page 195,—"I have myself partaken daily for some days of roasted beef from an ox killed because affected with splenic fever, without unpleasant results." "Boiling for two minutes entirely destroys rods and spores in all conditions—fresh or old, dry or moist;" and at page 198 his fifth deduction is "that the boiling point is fatal to the spores and rods."

The mere fact that these Caffres can eat and enjoy one of their voracious meals, after cooking the flesh of an anthrax animal, is of small importance after learning Mr Robertson's personal and experimental experience, but I submit a case for further inquiry as to the effect of protective means has been made out. Although we do not in this country recognise any special therapeutic quality in the indigenous species of *Matricaria* and *Teucrium*, still it may be kept in remembrance that, in addition to their stomachic and tonic properties, chamomiles, though inferior to many other medicines, in the words of Pareira, "as a remedy for intermittents . . . have gained considerable celebrity."

I should not wish to be understood as advocating the use of the flesh of anthrax infected cattle. My intention has been to raise inquiry as to the protective means to be used by those who unfortunately have to handle the diseased carcasses and hides; and the subject is one to which the attention of the Colonial Office should be called, so that, in conjunction with the authorities at the Cape, full inquiry may be made in the districts where this protective means is used.

Before I resume my seat may I add this deduction, although not strictly connected with the subject of my paper, that heat is the best destroyer, not only of the rods, but of the germs of the anthrax bacillus. Experience recorded so far back as the year 1873 (in the *Veterinarian* for December), has also proved the danger which may follow the burying of these diseased animals if in such a position that the water-drainage can affect the pond from

which the animals on a farm receive their water supply. We now know the explanation of this, yet it is remarkable that with fourteen years' interval burying is still permitted, and explanations sought for the prevalence of the disease! Boiling or cremation are undoubtedly, to my mind, the best methods of disposing of the diseased carcase. Whichever is practicable ought to be employed.



