

cow-herd asks Tityrus, who is represented here as a Christian, what he must do in order to preserve his cattle which had remained perfectly healthy, whilst the mortality was general? This is the answer:

Signum quod porhient esse crucis Dei
Magnus qui celsus solus in urbibus.
Christus perpetua gloria numina.
Cujus filius unicus,
Hic signum medius frontibus altum,
Concitarum pecudum certa salus fuit

page 837-839.

That is to say: "I make the sign of the cross of Jesus, etc., upon the foreheads of my cattle; and it is this which has preserved them." It appears likely that the custom which we still have in this country, but especially in Rhineland, of painting white crosses upon the walls of the stables, is a remains of this ancient superstition.

I do not think it necessary to delay longer upon this subject; I therefore pass to Ulbo Emmius, who informs us that in 1272 there was such a mortality among the horned cattle, that it resulted in a great famine; yet he says nothing upon the nature of the disease.

Outhof further gives account of others (distempers); but one of the most remarkable was that of 1682, during which he lived in this city. This contagion took rise in Italy, from thence passed by Burgundy, into Switzerland, Germany and Brabant. It differed however much from that which is now prevalent, and from that of 1710, etc.; for the cattle had especially a great heat and many pimples upon the tongue, which they lanced; as they also did in 1732, which saved them.

Then Outhof passes to the mortalities of 1710 and 1713. These he says broke out at first in Dalmatia, penetrated into Italy and Austria, ran along Bohemia and Hungary and also into Prussia, Russia, Sweden and into Denmark; and in 1714 into many villages of Switzerland, "*Per plurimos Helveticos pagos*," page 752.

It is then untrue that Switzerland has not been afflicted with this contagion during this century. This appears so much the more evident as by a prejudice or perhaps by a fact, which, I will not decide, they ascribed this disease to certain pills which malvolent men (as they believed in the Canton of Basle) spread about; this was inquired into by the College of Medicine of Basle. It confirmed this fact by the "*Mercurius d'Europe*" of the month of September, 1714, page 175. Similar prejudices have also existed elsewhere, and prove to us evidently, "*that a contagious disease has prevailed among the horned cattle at different periods, of which they have wrongly pointed out the causes.*" Agobard, Bishop of Lyons, who lived under Charlemagne, that is to say, at the beginning of the ninth century, has left a work entitled: "*Contra vulgi opinionem insulsam de Grandine et tonitruis*," in which he says, page 156: "When there was there some years ago a mortality, some persons pretended that the Duke Grimaldus had sent certain men with powders which they scattered upon the fields, the mountains, in the meadows and the rivers, in order to kill the cattle, because this Duke had a great hatred for his most Christian Majesty the Emperor. That he had not only heard of, but that he had seen when they had caught some of them, who after having been fastened upon planks, were thrown into the river and killed. And that which was the more surprising, they testified against them-

selves, that they had possessed and had in fact scattered such powders, etc. This was considered by every body as so true, that no one had the least doubt upon the subject." But Agobard looked upon all this as fabricated and absolutely impossible; which I do not however venture to assert. It appears to me that nothing prevents the spread of the distemper in a country, since we know that a single dried shirt of a person who had had the small pox at sea, a long time before arriving at the Cape of Good Hope, spread this disease in the whole Colony by the washing of it there. Do we not know that the variolæ matter which we save for inoculation of the small pox and of the distemper can alike produce a similar effect? I am far from thinking that the case reported by Agobard can be true; but I do not find in it the same absurdity as this Bishop, who had no knowledge of inoculation, and ignorant that the contagious matter can be carried far without its losing its morbid virtue. But let us return to our subject. It appears to be sufficiently proved by what I have said, that distempers have taken place at different times, and that even Switzerland has not been exempt from them. I also know with certainty, that this disease was prevalent in 1768 at Housse, in the Canton of Zurich, as well as in the Cantons of Zug and Schwytz.

But I return to Outhof, because he alone, as far as I know, has well described the distemper of 1714, which made such terrible ravages in the United Provinces.

Outhof informs us that the contagion broke out in 1713 in the Low Countries, and that in 1714 it penetrated into Friesland, where it prevailed with so much violence, that in less than a year it swept away forty thousand cows. It afterwards attacked the province of Groningen, by the side of Friesland, and to the east towards Eems, and spread at the end of December over all East Friesland. He also observes that the States of Holland and of West Friesland prohibited by placards, in 1714, the throwing of any animal which had died of the contagion into the sea, the lakes or the canals; and ordered them to be buried three feet deep under ground. They also prohibited the eating of the flesh of animals which had died of the contagion, in order that the people should not be exposed to pestilential diseases.

This foresight was so much the more necessary as those whom necessity induced to feed upon these cattle which had been thrown into the water, kept them hidden in their houses, although they began to be corrupt, from whence would follow very great evils.

It would render an essential service to publish, if we possessed them, all the placards which have been promulgated, both here and elsewhere, since the formation of the Republic, relative to the distemper; which the historians of this country generally pass with silence as not having anything in common with their political discussions.

I can assert at least that before the year 1713 there is no mention in the "*Grand Livre des placards*" of any ordinance upon the measures to be used against the distemper; and I have noticed by a very exact list of the ordinances published in the Province of Friesland, concerning horned cattle, which has been made known to me by M. le baron G. F. Thoe de Schwartzenberg and Hohenland-berg, that the introduction of foreign cattle was prohibited for the first time

the 27th November, 1713, until the 5th November, 1721, and afterwards from the 11th December, 1744, until the 29th January, 1747; from whence it must be concluded that, since the rise of the Republic, no contagious disease has prevailed among the cattle before the year 1713. This subject requires however further investigations.

Up to this time I have only spoken of the writers who not having any knowledge of anatomy or medicine, have however spoken of the distemper. But how can I quote the authors of Italy, England, France, Germany and of other countries, who have treated of the contagion which was prevalent in all Europe, from 1710 up to 1719? I must, however, recall to your memory that Ramazzini, Lancisi, Boromeo, Mazini, Nigrisoli, Michelotti, Magati, Lazzaroni, G. Guerra, F. Fantasi, D. di Ferraris, L. Castelli, C. F. Cogrossi, H. Corazzi, Ruini, Valisneri, and others, have published in Italy, shortly after the origin of the distemper, their judicious observations upon this disease.

The principal of these writings, particularly those of Ramazzini, of Lancisi and others, have been translated into German by Ch. Nic de Lange, and in 1719 into Dutch by A. Manbach. Abraham-Sal. Vander Voort also published in 1716 at Leiden a letter addressed to a friend upon the distemper which then prevailed among the horned cattle; but it has been impossible for me to obtain this morceau.

The English have also translated the principal Italian writers; but no people has shown itself more eager in this respect than the Germans. Bates, however, had already published in 1714 excellent observations upon this disease of cattle, and he had even opened many, as may be seen in the Philosophical Transactions, as well as in the abridgement of its memoirs.

When in 1740 the distemper broke out anew, all the nations at once appeared to take notice of it. The French have published many anonymous works upon this subject. In 1744, they printed at Besançon a volume in 8 vo. entitled: "*Observations sur la maladie contagieuse qui règne en Franche-Comté parmi les bœufs et les vaches*," etc.; at Paris appeared, in 1748, in 12 mo., a "*Dissertation sur la maladie épidémique des bestiaux*," etc., by Blondel; at Besançon, a "*Mémoire sur les maladies, etc., des bêtes à cornes*," a work which obtained the prize of the Academy of Besançon in 1766, in 8 vo., which up to the present time I have not been able to procure. The observations of the Marquis of Courtivron have given me much pleasure, and although in some things they may be rather superficial, yet they present much which is not found elsewhere; they are inserted in the Memoirs of the Royal Academy of Sciences, 1748 and 1752.

M. Sauvages published in 1746 a dissertation upon this subject; but I have not read it.

This disease attracted in 1746 at London the attention of Mr. Brookesby, a man of great attainments, and that of Mr. Cromwell Mortimer, in 1745 in the "*Philosophical Transactions*," number 477, vol. XLIII, and 1746, No. 478, vol. XLIV.; but these gentlemen have treated the matter more as theorists than practitioners: their numerous occupations and the immense extent of the City of London has prevented them from making experiments. The work of D. P. Laxard, published in 1757, in 8 vo., is one of quite another nature.