

T. SIBI  
EIO.P.F.NIGRIN.  
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IMP.CÆSARO  
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The last Inscription proves the great Antiquity of this City.

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XIII. *Further Observations on the Distemper now raging among the Cow-Kind, by the Publisher of these Transactions.*

Read Dec. 12. 1745. **S**INCE my former Paper on this Subject (*Nov. 21. \**) I have had Opportunities of being present when three Cows have been flea'd and open'd; the Lungs in all were inflamed and blistered, and the Guts in some Places inflamed, in others livid, the Gall-bladders exceeding large: A Collar-Maker's Man, who has been assisting in fleaing above a hundred dead Cows, assures me, these are the general Appearances in them all; except that in one he met with a large Bag full of Corruption, between the Bag inclosing the Heart and the Backbone; in another he found the Gall-bladder quite contracted and shrivell'd up, having little or no Gall in it; and in several he found scirrhus Knobs in the Livers.

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\* See p. 532. *supra*.

*Nov.*

Nov. 26. I desired Mr. *Hill*, an ingenious Apothecary in *Westminster*, to accompany me to see a Cow dissected, and to help me examine every thing very carefully, having got her drawn into a Shed, to defend us from the Weather.

When the Skin was taken off, she appeared very fat; the Muscles look'd of a darker Colour than usual. On opening the *Abdomen* the Caul appeared very fat; the Paunch was greatly distended; on making a Puncture much Wind gushed out: It had in it a great deal of Food; the Inside look'd well, and did not peel; the second and third Stomach, or the *Omasum*, as also the fourth Stomach or *Abomasum*, were almost empty, but looked well; the Liver was firm, well-coloured, and sound, except a few scirrhus Knobs about the Size of Nutmegs: The Gall-bladder was exceeding large, and full of very fluid Gall; the Guts were inflamed in many Places, the *Colon* and *Cæcum* livid: I had the Curiosity to have them measured; from the *Anus* to the Insertion of the *Cæcum* there were twelve Yards (the *Cæcum* was an Ell long), and from the *Cæcum* to the *Pylorus* there were fifty-two Yards. The Midriff was much swelled and inflamed: The Lungs were swelled, inflamed, adhered in some Places to the *Pleura*, and almost wholly covered with Bladders of Water: There was no Appearance of any Inflammation on the *Pleura*, or in either the internal or external intercostal Muscles: The Windpipe was inflamed greatly throughout its whole Course, especially its Inside; but the Gullet, which lay so near it, was not in the least inflamed: The Heart was of its natural Size, the *Pericardium* full of very fluid Blood, probably from the bursting  
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of some Branch of the coronary Artery, caused by the extraordinary Accumulation of Blood in the right Ventricle; for the *Vena cava*, and right Ventricle of the Heart, were turgid, and full of black coagulated Blood, tho' this Cow had been dead but 12 or 14 Hours; the Lungs were likewise turgid with Blood, but little or none was found in the left Ventricle or *Aorta*; the Obstruction seemed to have been so great in the Lungs, that very little Blood could pass thro' them from the right to the left Ventricle of the Heart, and therefore evidently evinces the Existence of a confirmed Peripneumony. All the Membranes lining the Nostrils, and the spongy Bones thereof, were quite turgid with Blood, and in the highest State of Inflammation. The greater and lesser Brain looked fair and well, seeming no way distemper'd.

I have not seen, in any Cows I have examined, any cutaneous Sores or Exulcerations, nothing like the Boils, Carbuncles, &c. described by Authors as the constant Concomitants of the Plague in Men: Nor does there seem to be any Attempt of Nature to fling off the Distemper by any internal Impostumation, or Discharge, unless by the Running at the Nose, and by the bilious Stools, or bilious Urine. The few, which have recovered, have been such as have been kept within Doors very warm, have been blooded once, twice, or oftener, have had warm Mashs of Malt and Bran given them, and warm Drenches of warm Herbs, such as Rosemary, Wormwood, and Ground-Ivy, with Honey or Treacle, and have neither purged at all, or but little; and when they have  
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not purged at all, their Urine has been observed to be as high-coloured as *Porter's Beer*.

I am informed, by the Farriers and Cowleeches, that an Horse or a Cow will bear to have near two Gallons of Blood taken away without fainting. One Cow, I have seen, within about a Month or six Weeks of her Calving-Time, was taken with the Running at the Nose, and Shortness of Breath; the Owner of her immediately took away out of the Neck five Quarts of Blood by Measure, and gave her a warm Mash of Malt once in six or eight Hours: Next Day he cut her Tail, and let her bleed two Hours; the Day after he took away two Quarts from under the Tongue, and so continued bleeding her, at fourteen or fifteen Hours Distance, for seven times. She did not purge at all; her Urine was as high-colour'd as Coffee at first, but grew paler and paler every time of bleeding: She soon recover'd, now eats heartily, looks brisk, and has not flunk her Calf.

The Concern the Cow-keepers are under for the Loss of their Substance, the various Methods offer'd to them, and their Want of Judgment either to chuse the most rational, or their Want of Accuracy in making Experiments, and following Directions, is quite discouraging, and is the Reason why none of them have pursued any Regimen so steadily as to give one an Opportunity of making Conclusions from it: Indeed several own to me, they are quite bewilderd, not knowing which way to turn themselves, or whose Advice to follow, what one says being quite contrary to the Directions given by another. Some to whom I have given my Directions have blooded once, have given the Purge once; but  
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have not given the oily Drench, or have given this once, and have not repeated it; others have given the chalky Drench once, and not repeated it, and have not followed the other Parts of my Instructions; so that I am sorry to find that I can have no satisfactory Experiments made: Yet, as the State of the Disease seems so evidently to be a Peripneumony, or Inflammation of the Lungs, Windpipe, and Nostrils, attended with a Redundance of Gall, I cannot forbear urging to the Public the following Method.

- “ Give to all Cows in general, while well, half  
 “ an Ounce or an Ounce (according to the Size  
 “ of the Cow) of *Crocus Metallorum*. As soon  
 “ as a Cow falls off her Meat, give her another  
 “ Dose of *Crocus Metallorum*; and give her  
 “ warm Mashs of Malt, Bran, &c. When she  
 “ runs at the Nose, lay a Bag of Malt-Meal,  
 “ wetted with boiling Water, upon her Fore-  
 “ head and Nose, tying it to her Horns, Morn-  
 “ ing and Evening; pour warm Vinegar and  
 “ Salt into the Nostrils: If a short Cough, or  
 “ Difficulty of Breathing, comes on, bleed her  
 “ one Quart twice a Day, for three or four  
 “ Days, and every six Hours give the oily  
 “ Drench: If a Purging comes on, give another  
 “ Dose of the *Crocus Metallorum*; if it conti-  
 “ nue, give the chalky Drench every six Hours,  
 “ and if it does not abate in twenty-four  
 “ Hours, inject the same Mixture by way of  
 “ Glyster; and if the husky Cough continues  
 “ with the Purging, give the oily Drench one  
 “ three Hours, and the chalky Drench the next  
 “ three Hours.”

Most of the Cows which have recovered from this Distemper recover their Milk again, as their Appetites mend; but they are observed to have scabby Eruptions come out in their Groins and *Axilla*, which itch much; for a Cow will stand still, hold out her Leg, and shew Signs of great Pleasure, when a Man scratches these Pustules or Scabs for her.

I am informed, that some Cow-leeches have given *Coloquintida* and Salt of Tartar, each one Ounce, in a Quart of warm Ale; but I imagine it must be too griping a Purge, and improper where the Guts are inflamed. Indeed I have not heard of any Cows recovering which took it.

As for the Cause of this Distemper, I am still at a Loss; I think it cannot be owing to the Food, because the Cows which had it first in *Essex* eat only Grass, Turneps, and Hay or Straw; the Cows about *London* eat, some, Grass; all, Grains and Hay, some, little or no Grass, but live chiefly on Grains, Turneps, Off falls from the Garden-grounds, and Hay.

I am in Doubt as to the Air; the Spring and Summer were very wet, and the Ground very damp, the Autumn was very dry and cold, the Beginning of Winter very damp and cold. The Cows in *Essex* had the Distemper in Summer; it first began about *London* in Autumn: It has spread itself equally among Cows which have lain in the Fields a-nights, and those which stood in Stables or Sheds: It spread itself in *Essex*, at first into such Farms where they bought in strange Calves, or lean Cows, at Market, which they did not know where they came from; but most probably from the Hundreds where the Disease first broke out; but how it got thither, whether

whether by importing any Cattle from *Flanders*, I know not; for surely there is too wide a Tract of Sea for any infectious *Miasmata* to be waisted over to that Part of the Country by the Winds! This is certain, the *Viscera* concerned in Respiration are the Parts chiefly affected. Its Spreading here in *England* has been progressive; and therefore one may reasonably think it is not constitutionary in the Air, for then it ought to be universal every-where; but that it is contagious, and propagated by infected Cows being mixed with well Cows: Therefore the not buying in Calves, or strange Beasts, but every Farmer keeping his Herd by itself, must be a great means of preventing the Propagation of it: And housing the Cows a-nights may be a proper Preservative against it.

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XIV. *Extract of a Letter from Mr. Arderon to Mr. Baker, F. R. S. giving an Account of the Weaver's Alarm, vulgò LARUM.*

Read Dec. 12. 1745. **N**OTHING is more true, than that Necessity is the Mother of Invention; among the many Instances of which, the useful Contrivance I am going to describe may serve as one remarkable Example.

This little *Apparatus* goes commonly by the Name of the Weaver's *Larum*, from its being chiefly or originally made use of by Persons employed in that Trade, who have frequently Occasion to get up very early to their Work: And, as I am informed,