

- I. *An Account of the Scarabæus Galeatus Pulsator, or the Death Watch, by Mr. Hugh Stackhouse. Communicated by John Harwood, L. L. D. R. S. S.*

AS I stood thoughtful in my Study, on the 16th of May, 1724, I happen'd to hear, what is commonly call'd the *Death Watch*, very near, as I thought, to the Place where I then stood: This brought into my Mind, what I had formerly read in the *Philosophical Transactions*, for the Month of *October*, 1698, of the *Scarabæus Galeatus Pulsator*, found, and describ'd, by Mr. *Benjamin Allen*. While I was thinking upon the Account there given, I fancied I heard the Beatings somewhat stronger than before, which encourag'd me to search after it; I thereupon removed my Station to another Part of the Room, and soon discover'd, that I had pass'd the Place where the Beatings were; upon which, I concluded, that it lay somewhere betwixt my two Stations; I therefore remov'd, and placed myself about the middle Distance; where, though the Beatings did not repeat so frequently as before, yet when they did, I found I was still nearer 'em. While I stood in this Place, I fancied 'twas over my Head, toward the Ceiling of the Room; upon this, I got upon a Chair, that had a Sedge Bottom, and stood to the Wall just before me; but standing there for some time, I could hear no Beatings at all. I then stept down from the Chair, and after I had stood still for some time, the

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Beatings began again ; this made me conjecture, that they might be about the Chair, and that my standing upon it might prevent them. Upon inclining my Head down toward the Chair, I found I was still nearer and nearer to the Sound, and, at last, placing my Ear close to the Sedge Bottom of the Chair, I discover'd that it was still further towards the Ground : Upon that, I turn'd the Chair's Bottom upwards, but heard no Beatings for a considerable time after ; at length, they began again, and, as I cast a diligent Eye over the Bottom of the Chair, I happen'd, at last, to hit luckily upon the Place where the Insect was beating ; so that it discover'd itself to me by its own Pulsations. I was very much pleas'd with the Discovery, and not only stood viewing it beat for some time, but also afterwards call'd up others to see it beat, which they did, and that, not without Admiration. The Manner of its Beating was thus.

It lifted up itself upon its hinder Legs, and somewhat extending, or rather inclining its Neck, beat down its Face upon the Sedge, with great Force and Agility ; the Sedge, upon which I found it, was bared of its outward Coat, for about the Length of half an Inch ; the Insect stood upon the inward bulbous Part, and beat upon the outward Coat, as if it had been working it off as it went ; the Impressions of its Strokes were very visible, the Coat of the Sedge being depress'd, where it had beaten, for about the Compass of a silver Penny ; whether it beat for Exercise, or Food sake, I cannot certainly say ; but very probably it might be for the latter ; and I am rather inclin'd to think so, because there were more than one such Places upon the Sedge, where it had been at work, and where, 'tis likely, it might have been a Sojourner for some Days.

As to what the ingenious Mr. *Derham* of *Upminster* has observ'd, that the Beatings are a sort of Prelude for Copulation, I could not discover that this Beetle had any other of the same Species near it; and therefore I am inclin'd to think, that it beat for the Preparation of its Food, at this time, at least, whatsoever it might do at other times, for Pleasure. The Description Mr. *Allen* gives of the Insect, as refer'd to above, forasmuch as I can find by this (which I took from the Chair where I found it, into a Box) is very true: 'Tis about a Quarter of an Inch in length, of a dark, dirty Colour, having a broad *Galea*, or Helmet, over its Head; under which, when quiet, it draws up its Head; so that this *Galea* is, when this Insect rests, a very notable and providential Defence against such Falls, as are frequent in rotten and decay'd Places, in which, it should seem, this Insect is very much conversant. The second Day after I took it, I open'd the Box wherein it was, and set it in the Sun: The Insect was soon very brisk, and crept backwards and forwards along the Pieces of Sedge, and rotten Wood, that I had put with it into the Box, till at length getting to the End of one of the Pieces, it immediately struck out its Wings, and was just going to take its Farewell; but having the Lid of the Box ready in my Hand, I shaded it over, and it soon drew in its Wings, and was very quiet. I could not before perceive, though I had the Use of a tolerable good Glass, any the least Sign of a Filure upon its Back; and, for that Reason, did greatly question, whether it had any Wings or not, till I set it, as above, in the Sun. The Head of the Insect appears to be of a very fine Contexture, as it is seen, when it creeps about, and stretcheth it forward; but when 'tis drawn up under its *Galea*, it seems to be cover'd with a Membrane thick set with fine Hairs.

It lived with me about a Fortnight, but I could never perceive that it beat, after it was confin'd in the Box.

II. *Observations of the Eclipses of the first Satellite of Jupiter, communicated by his Excellency William Burnet, Esq; Governor of New York, F. R. S.*

These Observations were made in the Fort of *New York*, for determining the Longitude of that Place by us,

William Burnet, Cadwallader Colden, James Alexander, and calculated by Cadwallader Colden.

The Latitude of the Fort, was formerly determin'd to be $40^{\circ} 40'$.

August the 9th, 1723.

T IME of Emerſion at <i>London</i> , according to Mr. <i>Pound's</i> Tables,	<i>H.</i>	<i>ʳ</i>	<i>"</i>
reduced to apparent Time	16	09	25
Time as it was ſeen at <i>New York</i>	11	10	43
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Difference of Meridians	4	58	42

I neglected to write down the Altitudes which were taken of the Sun, for correcting the Clock.

August