

this Invention. The Numbers given will serve to examine the Truth of what I have asserted concerning the Motion of the Mercury: And from them one may make Tables to serve to proportion these Engines for raising any Quantity of Water to any Height, according to the Power one has to apply.

III. *Part of a Letter from Mr. Peter Derante, Chirurgeon in Waterford, to Mr. John Douglas, Chirurgeon, F. R. S concerning the coming off of the Scapula and Head of the Os Humeri, upon a Mortification.*

ON the 5th of November, 1713, One John Fletcher, on board the *Neptune* of *Liverpool*, had the Misfortune to break the *Radius* and *Ulna* (of his left Arm) and their Ends burst thro' the Skin. He was immediately dress'd by the Surgeon of the Ship with the common Astringents and Bandage; about five or six Days afterwards I was sent for to go down to *Passage* to see this Man. When I came there, I found his Surgeon along with him, who told me, That the Man would do very well, because he was in no pain at all; however, I desir'd him to take off the Dressings, and let me look on't. Which being done, I found it was black and insensible from his Fingers to his Shoulder, and therefore advis'd the Extirpation of it immediately, but his Surgeon oppos'd it; however, I scarified it in several Places, and very deep, and then apply'd a warm Dressing. Next Day the Ship put to Sea, and the poor

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Creature

Creature was sent to *Waterford*, and committed to my Care. As soon as I could get my *Apparatus* ready, I cut off his Arm (in presence of Dr. *Renet*, and Mr. *Carr* an Apothecary) as high as possible; then I cauterized the Stump, which was perfectly mortified as high as the *Acromion*. Next Day I perceiv'd the Mortification spreading toward the lower Angle of the *Scapula*, then I rubb'd the Edges of the Mortification with armed Probes dipt in a Solution of *Argentum Vivum* in *Aq. Fort.* which compleatly answer'd my Intention; for from that time the Mortification spread no further; next Dressing I scarified and cauterized all the mortified part, and dress'd it *S. A.* I continued this Method for seventeen or eighteen Days, and then the Sloughs began to separate and cast off daily; some time afterwards the *Scapula* began to part from the *Os Humeri* and *Clavicula*, and at length came out whole; I was then put to it what to do about the stump of the *Os Humeri*, which still adhered to the *Pectoralis* and *Lattissimus Dorsi*; but in a little time it also separated and came away, without any Hemorrhage succeeding, which I expected. I was afterwards obliged to cut off part of the *Clavicula*, before I could cicatrize the Wound, which was soon afterwards accomplished. I have the *Scapula* and Head of the *Os Humeri* still in my Custody, and have shewn them to many Surgeons and Physicians. All *Waterford* is Witness of this Fact, and they called him ever afterwards *Three Quarters of a Man*.

I am, &c.

Waterford, Jan.

172 $\frac{1}{2}$.

Pet. Derante.