

many small living Animals; and the *Muscle* it self had two thin Films, consisting of long slender *Threads*, with little knobby parts thereon, something like the Beards or Fins of *Oysters*, but were more easily separable from the Fish: These Strings were thick beset with Hairs continually moving; and through the *Threads* themselves I saw a great number of small *Animals*.

In the Liquor in *Oysters* I found several sorts of *Amalcules*, but in their Beards or Gills none, possibly because the *Oysters* were dead.

Examining the *Sap* that bleeds from *Vines*, I found therein several *Amalcules* of different sizes, such as I had formerly observed in Water. And I suppose that the Sun may have raised the very small *Eggs* of these *Amalcules*, and let them fall in Dew or Rain on the outsides of *Vines* which stopt by the Leathers that fasten them to the Wall, are there hatch'd and carried down with the trickling *Sap*, which I am confirmed in, by reason after Rain I found of these *Amalcules* in the Water so stopt by the Leathers; and at other times I have found no *Amalcules* in the *Sap* of *Vines*.

I have sometimes found in this *Sap* an *Aurelia*, such as *Fig. 5.* but a Million of times smaller than a course Sand. Some of these I brought home, but those in the Air dried up to nothing, and some that I kept in Water were lost.

## V. Some Observations in the Dissection of a Ratt, communicated by Mr. R. W. S.R.S.

THE *Fore-Foot* of a *Rat* resemble those of the *Castor*. The *Hair* is also some Fine, some Course; as in that *Animal*. The *Tail* scaly, with Hairs between every

every Scale, like the *Castors*, which shews these two *Animals* to be something a-kin ; and indeed the *Water-Rat* comes very near to the *Beaver*, and makes it's Holes in the bank-sides of Ponds after the same manner.

The *Penis* in the *Rat* has a particular Passage near the *Navel*, as in *Squirrels* ; and not at the *Anus*, as in the *Castor*.

The *Liver* is full of little Specks as big as Pins Heads, which are the little *Glands* thereof.

There was no *Gall-Bladder*, but a *Ductus Felleus* ; possibly the *Bladder* was inclosed in the *Parenchyma* of the *Liver*, as it is in some *Animals*.

The *Cæcum* was much larger than the *Stomach*, and in shape like that of the *Castor*.

The *Testicles* lay not behind, but in the *Groins* on the *Os Pubis*. These were like a *Bottom* or *Skein* of *Thred* rumbled up together, which was visible through the Coats of the *Testicle*. This *Thred* continued of near the same Size in the *Epididymides*, only towards the *Deferentia* it grew larger, as is seen in the Figure. It was tender, and not easie to be unravel'd, so that I could not draw out above Three Quarters of a Yard.

The *Prostatæ* lay under the *Spermatic Arteries*.

The *Kidneys* were whitish with their *Succenturiati*, as in the *Figure* annext. At the Neck of the *Bladder* were inserted the *Vesiculæ Seminales*, transparent and fill'd with the *Semen*.

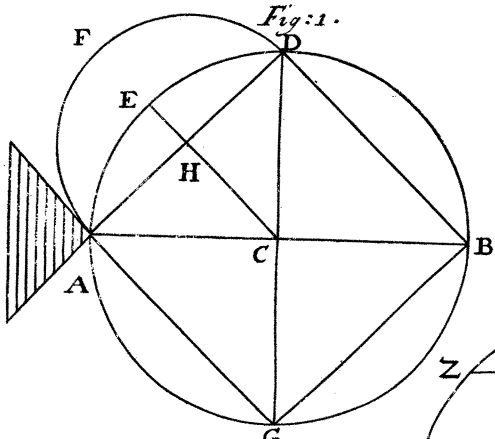
Toward the End of the *Penis*, which had a *Bony Gristle*, were two large *Glands*, emptying themselves near the End of the *Penis*, and contained a Substance like *Cream*, as in the *Dormouse*, observed by *Swammerdam*.

*Figure the 6th represents,*

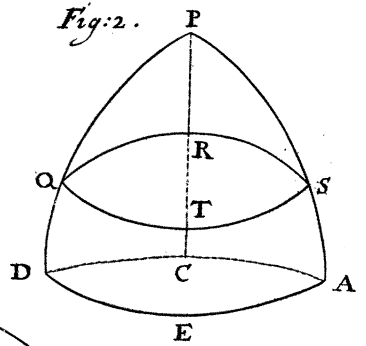
<i>A A</i> , The Kidneys.	}	<i>F</i> , The Bladder.
<i>a a</i> , The <i>Renes Succenturiati</i> .		<i>g g</i> , The Spermatick Vessels, Veins and Arteries.
<i>b b</i> , The <i>Ureters</i> .		<i>h h</i> , The <i>Testes</i> , with the Branches of the Veins and Arteries.
<i>c c</i> , The Crural Veins and Arteries.		<i>i i</i> , The <i>Epididymides</i> .
<i>D</i> , <i>Arteria Magna</i> .		<i>k k</i> , The <i>Deferentia</i> .
<i>e</i> , <i>Vena Cava</i> .		<i>l</i> , The <i>Penis</i> .
		<i>m m</i> , <i>Vesiculæ Seminales</i> .
	<i>n n</i> , Two Glands, from whence a thick Juyce might be press'd out.	
	<i>o</i> , The <i>Balanus</i> .	

*An Estimate of the Degrees of the Mortality of Mankind, drawn from curious Tables of the Births and Funerals at the City of Breslaw; with an Attempt to ascertain the Price of Annuities upon Lives. By Mr. E. Halley, R.S.S.*

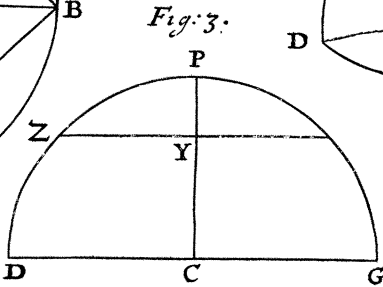
**T**HE Contemplation of the *Mortality of Mankind*, has besides the *Moral*, its *Physical* and *Political* Uses, both which have been some years since most judiciously considered by the curious Sir *William Petty*, in his *Natural* and *Political* Observations on the Bills of *Mortality of London*, owned by Captain *John Graunt*. And since in a like Treatise on the Bills of *Mortality of Dublin*.



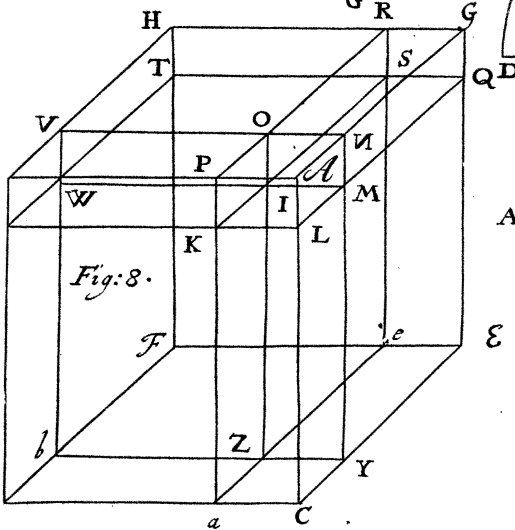
*Fig:1.*



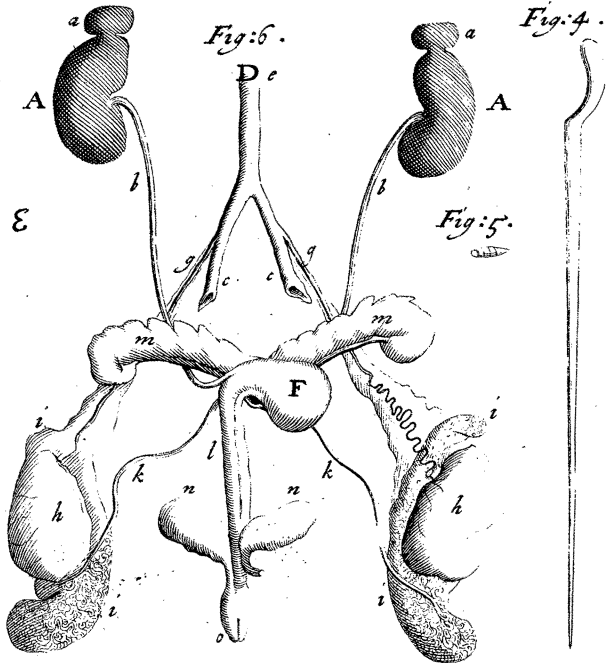
*Fig:2.*



*Fig:3.*



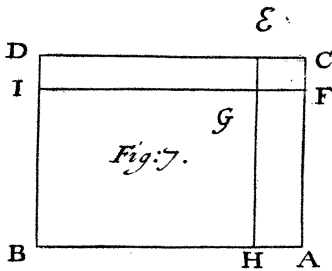
*Fig:8.*



*Fig:6.*

*Fig:4.*

*Fig:5.*



*Fig:7.*