concerned in the publication hereof in your Monthly Book; 
I pray, direct such as shall desire to make any use hereof or 
be further satisfied herein, to Mr. Thomas Rastell at the Jer-
kers Office in the Guinea house, or to the said Mr. Rastell or
Mr. Francis Dracott at Mr. Garraways Coffee-house, where 
they will be found every Tuesday and Thursday from eleven to 
twelve of the clock, and afterwards the same days in the 
West-India-Walk upon the Exchange. The said Mr. Rastell and 
Mr. Dracott being the persons employed by the Parties con-
cerned in the management of this Work, they may receive sa-
tisfaction from them, that this way of sheathing is as cheap as 
the other, much more durable, and in many respects more be-
neficial to the Owners, both in point of charge and advan-
tage in saying, then any way of sheathing hitherto used. This 
is all at present from, Sir,

Westminster, this 7th 
of Feb. 1674

Your very humble Servant
John Bulstel.

An Account of two Books:
I. MUSICA SPECULATIVA del Mengoli, Dottor dell' una &
L'altra Legge, & P. P. de scienze Mechaniche nello Studio di 
Bologna: In Bologna 1670, in 4.*

Of this Italian Treatise we could give no sooner notice, 
because it came but very lately to our hands, though it 
hath been printed three years ago. The famous Author un-
dertakes to give in it a better account of Mufick and the rea-
sions of Songs, than has been done hitherto. And whereas a-
mong the suppositions of Mufick it hath been received for an 
undoubted Axiom, that Consonance is made by the frequent 
union of two Sounds in Striking the External Drum of 
the Ear, (for he pretends there is another Drum) at one and 
the same time; he affirms to have discover'd this to be utterly 
falfe, and maketh it his business to prove it in the 4th and 17th 
speculation of this Book. In the making of which Discovery 
he relates to have been assisted by taking an exact view of the 
Organ of Hearing it self; he and his Anatomical friends having 
there taken particular notice, How the three little bones are 
sawed to one another and to the two Drums, the External and 
Internal, (Anatomists having hitherto spoken but of one on-
ly,)
ly, and to the little Cavern and the mouth thereof; and how they were able to guide the threads through the passage of that cavern. And having carefully observed all these parts, both as they were Joyned together in their respective places, and separate, one by one; he tells us, that then he set upon writing these Speculations. In which he gives us in the first place his Natural History of Musick, which being the ground of the whole work, we think it will not be unacceptable to the Reader, to find it here entirely Englished; especially since the Book itself is yet very scarce in England, the commerce between our and the Italian Stationers being very slow, if there be any at all. But before I here deliver this History, I find myself obliged to take notice, that it, as well as divers other parts of this Treatise, are somewhat obscurely written; which the Reader of the Book itself, though he be well versed in the Language wherein 'tis written, and in the Argument, will find to be so, whenever he shall have opportunity and leisure to read it: This being premised, the History it self follows.

The Natural History of Musick.

A Sound begins from the collision of two parts of the Air, which parting from one another, make a vacuity as to Air, in which vacuum two other parcels of Air do meet and knock one another: And because the two first parcels of Air do incline to return to the center of the collision, but cannot, because the room is taken up, they do part from the center by lines curled and as 'twere recurring to their first place, in the doing of which they make a collision with those parts of the Air that have possessed themselves of their room. And thus the species of the Sound is multiplied and extended.

These curled lines are more waving near the center of the collision, as being more stretch't long-ways than spirally, and less waving when they are further off from the center; in which latter lines, the inclination to return towards the center is prevalent above the impetus of receding from it; so that at last they turn back towards the center. Thus of the species of a Sound there is filled a sphere of Air, or such a part of a sphere of it, as this motion of the Air can without impediment spread it self through.

Beccecece
In like manner two Sounds, from two centers, one within the sonorous sphere of the other, do begin and are distributed through the small particles of the Air, in such a manner, that some of the pulses are affected by one sound, and others, without confusion, by the other, and that the pulses of the acuter sound are swifter and do compleat their curvings in a shorter time, and the pulses of the graver sound in a longer.

The *Aura* or subtle matter, in which these motions of the Air are made, according to its incomparable subtility, and that property which it hath of being altogether indifferent to any condition of bodies, and futed exactly to represent any motion, or stamp, or weight of other bodies, among which it is found; this *Aura*, I say, doth second, and not at all impede the two motions produced by those two sorts of pulses, being moved with all the innumerable intermediate motions. There may also more sounds than two be distributed through the particles of Air, yet not without some confusion. And the more Sounds there are, the more confused will the distribution of the pulses be, especially near the centers themselves, whence the Sounds begin.

The *Ear* is an Organ, by which a man placed in a sonorous Sphere perceives sound, consonancy, and songs. This organ hath three parts; the exterior, which is without the Cavity of the Ear, and visibly extant on the head; the middle-most, which is the Cavity itself, and the innermost, which being within the Cavity, is a spongy bone of the form of a sponge, in which is a cavern, recurring to the hollow part of the Ear, and shaped like a knot of ribbons (*ital. nastro*). And in all the holes of this spongy-like bone there are found webs stretch't out, that enclose the Air congeit or implanted.

The middle part is closed up by two membranes, called Drums, stretch't over the cavity of the Ear. And of these two, the one is *external*, at the bottom of the exterior part of the Ear; and the other *internal*, upon the mouth of the cavern. And between these Drums there are three small bones, tied to one another, and to the drums, and fasted in two points to the sides of the cavity, and movable, so that if the outward Drum does shake, the inward must shake also, and that twice as often.

The
The inclination of the two Drums is to move in a proportion to the double; but the exigency of the instrument makes them move differently from their inclination; so that this is the sensitive Organ, in which the Soul is to take notice of what is there acted.

Between the two drums there is no Air properly so called, but only an Air which seconding the inclinations of the drums to motion, and the motions themselves, preserves all the intermediate inclinations and motions. And the reasonable Soul, permanent in its nature, placed in the shutting Body as the form thereof, hath this natural property, to make what is temporal permanent, that is to say, to stay Time in her self, and to collect all the times of the intermediate inclinations and motions, which are in the Aura; in the doing of which, the abstracts from matter two things that are demonstrated to be proportional, as the logarithms of the two Ratios; one of the drums inclinations to motion, and the other of the drums motions themselves. Whence the Soul in hearing hath always ready the two Ratios, double in act, and half of the double inclinations, of which the makes use for measures to apprehend all the ratios of Sounds.

If the Ear be within a Sonorous Sphere, the particles of the Air affected by the sound do enter at the external part of the Ear, one after the other, and all pass in order, through the spiral ways that are there, to the bottom of the Ear, where every one strikes the drum, and after that, by other spiral ways, fly out of the Ear again, and to give place to other particles of air, that succeed to do the time.
of the cavern of the internal part of the Ear, alternately goes and comes through its knot-like passage, and spreads itself through the other ways of the spongy-like bone, and being re-percussed to the webs that close it, rebounds and multiplies the sound. An other parcel of Air follows, and strikes the drum again, and caueth the shaking as before.

But if the Ear be within two Sonorous Spheres, the affected pulses that cause the sound, do succeed one another, by turns, to strike the outward drum; and by the exigences of the alternations, the ratios that are not expressible by numbers become to be so, and that both of such numbers, as can be distributed amongst the particles of the Air, and of such alternations, as that amongst the strokes, the shakings of the drum may be all numbered. And the Soul perceives the numbers of these alternations, and the numbers of the shakings of the drum amidst the strokes of the two sounds: And whilst the aura that is affected by the two sounding bodies, does communicate with the aura between the drums, she there takes also notice of the Logarithms of the ratios of sounds, and commensurates it with the Logarithms of the ratios, the double, and its half.

Now, for as much as the Soul pleaseth her self with two sounds together, and with the succession of many sounds one after another, that occur in one Song, it is necessary she should comprehend in the Sense these three things which she perceiveth, without any abstraction of the Mind. The numbers of the alternation must needs be easy to make, and two in one sole numeration. The commensuration of the Logarithms must be made by the way of an easy division into parts, and into a number of parts easy to be numbered.

And because it is not possible precisely to accord these two things equally, some errors must needs happen, which may be all perceived by Reason, but cannot all be alike taken notice of by Sense: Some are insensible, some altogether intolerable and absurd, others between both; and of these, some are nearer to the sensible ones; others, to those that are intolerable: Of which errors, convenient estimates are given, and according to the differences of those errors the ratios of sounds are distinguished.
Lastly, because it is not possible equally to adjust these two things with the numbers of the shakings of the drum; it is necessary, that the soul, desirous of the delight, in the earnest attention to the sound do invigorate her self, and be busy and intent about the outward drum, drawing and restoring it from time to time, more or less; that so the numbers of its shakings may answer to the alternations of the touches, and to the logarithms of the most easy numbers and parts that’s possible: in the doing of which, the learns the Tune which the hears, and keeps it within her, and is glad to find herself moved by various affections, sometimes to stretch the drum; sometimes to relax it, otherwhile to leave it in its natural tension, with a certain order, and for certain cases of the sound, which in the Tune do occur to her.

So far his History of Music by which being premised by him, he makes us a very particular and minute Description of the Ear, of Sound, and of Hearing, especially of the Hearing of two sounds together; where occur many Theorems, by him laid down as the chief Foundation of his whole work. Which done, he treats of all sorts of Musical Intervals, their perfection and Measure; explicating this doctrine also by many Theorems; and giving withal the Definitions of the several Intervals, and taking particular notice of six sorts of them, for which having found no names, he thought fit to borrow names for them from Colors.

Next, he discourses at large of the True Numbers of Sounds, and of the various properties thence resulting for Musical Intervals; all which he likewise elucidates with divers considerable Theorems; shewing withal, between what true numbers of Sounds the Species of each Interval is most perfect, and reaching, that the rational Soul by her active and earnest attention gives the true number to the first Sound, that in the Ear is exhibited to her.

Further, he treats of Musical Chords, then of Singing, and the Modulation or Tune; which latter he distinguishes from Singing in general, by this, That it is such a kind of Song, as impresses it so strongly upon the Soul, as to incline her to sing it over and over again. Here, by the help of a Table, he shews to have composed in order all the Species of possible Modulations or Tunes.
Tunes in every Tetrachord, and reduced them also to a Table.

Besides this, he discourses amply of the Accord of more Sounds, and of Harmonical Proportionality, as also of the Passions of the Soul; how they are concerned in and wrought upon by Musick, giving us a Table of the several Musical Chords suited to the several Affections. He concludes the whole with a large discourse of the Modern, both Church and other Musick.

Now, whether this Author have by all these his Speculations and pains given a perfect Scale of Musick, according to the true Proportions of Sounds, (which is the great desideratum in Musick,) we must leave to the judgement of the great Masters of Musick, especially to the judicious and extraordinarily skilful Musician Mr. John Birchenhof, who, if it is still hoped, if he be competently encourag'd and assisted, will in due time publish to the world a Compleat System of Musick, after the method formerly taken notice of in these Tracts, Number 90. P. 5153.

II. Georgii, Wedelii M. D. Specimen Experimenti Novi. de Sale Volatili Plantarum, Francofurti, 1672, in 12°.

This Author endeavors to shew in this Tract, that by a peculiar way there may be drawn out of Plants a true and genuine Volatil Salt; asserting, that there is not only in Cephalick, Anti-Scorbutick, &c., but also in those Plants that are insipid and accounted cold, a volatil Salt lurking. And this he offers to prove:

Firstly, by the food of Animals, that live altogether upon Grals, and such like herbs, and do abound in Volatil Salt, which he pretends is not made such by digestion, since to him it is not imaginable, that the Heat of Animals, or the Ferment of their innate Volatil Salt, is so multiplicative, as to diffuse and extend it self so far, as to prepare this Salt, and that so copiously out of Herbs supposed to have none such.

Secondly, Chymists are granted to draw hot Spirits out of cold; Why then should they not afford Volatil Salts, since ardent Spirits are akin to them?

Thirdly, the smoak and foot of herbs and wood purge the eye: Whence that but from a volatile Spirit?
Fourthly, Wine abounds in Volatile Salt, and one of its
feces such Salt is extracted.

Fifthly, Bread as soon as ris in the stomach, refreshes and re-
covers the faint, before any Chyle or blood is made of it; and
even the steam of bread in the Oven is restorative. Whose-
celse, but that the Volatile Salts, which are subtile and exceed-
ing active and piercing, are darted into the Nerves, Veins and
Arteries, and thereby suddenly relieve the indigent body?

Sixthly, he affirms to have obtained fine crystals out of
Quinces, Opium &c. which he can deduce from no other prin-
ciple than that of Volatile Salt.

Seventhly, he faith, that he hath actually drawn from a cer-
tain herb a very fine Volatile Armoniacal Salt, without any
additament that could be as much as suspected to participate
in the least of any such Salt: and that he hath performed this
without fire.

This done, he relates the several ways used by others to
draw Volatile Salt out of Plants; and on this occasion dis-
tinguishes two sorts of Fermentation, the one destructive, where-
by the Form of the mixed bodies perish; and which tends
to Corruption; the other Elicitive, whereby parts latent are
brought to light, and are extricated from the bonds that kept
them imprisoned. And by this latter way he faith that the Vo-
latile saline parts may be set at liberty and made to fly away.

And having declared, that by means of an Artificial fer-
mcntation Volatile Salt may be obtained out of Plants, more
or less: he giveth this general direttion about it, that they
must be bruised, digested, and in due time (which is chiefly in
the Spring) their Volatile Salt collected; referring particulars
to a time, when he shall have verified this Experiment in more
Plants, than he hath yet done.

To all this, he annexes the great use of Volatile Salts extra-
cited out of Plants, especially in almost all Diseases, for as much
as they are able to dis-obstruct the pores of the Brain; diffuse
Lethargies and Apoplexies; afford to the Spirits a free pas-
sage through the nerves; recover faintings; remove hypo-
chondriacal and hysterical suffocations; attenuate the blood;
pass into the inmost recesses of the bowels, and open all ob-
structions there; depurate the blood, and what not?
He concludes the whole with four Chapters, whereof the first treats of the Pores and Figures of Volatil Salts, corresponding to those of the Brain, Heart, Blood, Nerves: The second compares Volatil Salt with Quicksilver, which he takes to be nothing else but a Volatil Salt: The third examines, whether Volatil Salts are contained in Mixts actually or potentially: The fourth inquires, whether all Volatil Salts are of the same kind.

So much of this Author; whose way not being here made out and declared, we hope, a Learned and very knowing Member of the R. Society, Doctor Daniel Coxe, will shortly supply the world with that defect, he being certainly and experimentally master of a sure and easy way of extracting the Volatil Salt out of all sorts of Plants.

An Advertisement.

Hearing of great complaints of the Rot of Sheep in many parts of England; we thought, it would not be unwelcome to the Reader, to be, on such an occasion, directed, for a good and cheap way of preventing the disease, to what the Honourable Robert Boyle hath published in his second Tome of the Usefulness of Natural Philosophy, printed at Oxford A. 1671. p. 15. The short whereof is; That a great Sheepmaster lately preserved his Flocks in a moist Country, when most of his neighbours lost theirs; and that he did it by the bare use of (Spanish) Salt, of which each Sheep, being first made to bleed a little under the Eye, was made to take down a small handful, two or three times (with some days of interval,) without being suffer'd for some hours to drink any thing after it.