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CLASS II.  
CHEMICAL PREPARA-  
TIONS OF ANIMALS.

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Spiritus, Sal & Oleum Cornu Cervi.  
*Spirit, Salt and Oil of Hart's-horn.*

**T**AKE any quantity of Hartshorn, broke into small pieces, and put it into an earthen or a coated glass retort, so as to fill the same up to the neck; fit a large receiver thereto, and distil with due degrees of heat, in an open fire. The *Phlegm* will first ascend, then the Spirit, next the yellow *Oily Salt*, and at length the dusky red *Oil*, together with the ~~volatile Salt~~; a black *Earth* remaining at the bottom, which being calcined in an open fire till it becomes white, is called by the name of *calcined Hartshorn*.

The several preparations being pour'd out of the receiver, are thus separated.

The *Oil* is separated from the *Phlegm* and Spirit by filtration; the two latter pressing thro' and leaving the *Oil* behind.

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The phlegm is separated from the spirit by gentle distillation, in a tall vessel; the spirit ascending first, and leaving the phlegm behind.

The spirit may be resolved into salt and phlegm, by distilling it in a very tall and narrow cucurbit; for thus the dry salt will fix it self to the head, and leave the phlegm at the bottom.

The Salt is freed from the Oil, by subliming it with six times its own quantity of chalk, or calcined bones; for by this means the Oil is kept down, whilst the Salt sublimes\*.

*A Spirit, Salt and Oil,*

May in like manner be distill'd from all the solid parts of Animals; as also from their blood, provided it be first dry'd by a gentle heat †.

The same may be done from Urine, evaporated to the consistence of honey, and putrefied; or whilst it remains fresh, provided it be mix'd with four times its own quantity of Sand; or an equal proportion of any fix'd alkaline Salt.

\* For full and particular directions relating to these several operations, see *Boerhaave's Chemistry*, pag. 220—225. PRACT.

† For proof of this, see *Boerhaave's Processes upon Animals, New Method of Chemistry*, pag. 217-220, &c. PRACT.



Urine, with the addition of Quick-lime, affords nothing but an exceeding pungent Spirit.

Sal Ammoniacum factitium.

*Factitious Sal-Ammoniac.*

Take of human Urine, or that of any kind of labouring Cattle, three quarts; of Sea-salt, two pounds; of Wood-foot, one pound; and boil them together into a mass, put this into proper subliming-pots, and urge it with a gradual fire, to sublime the Salt; which will become purer by repeated solutions in water, filtration and evaporation continued till it remains dry; as also by repeated sublimation.

But this is brought from abroad ready prepared to our hands.

Spiritus Salis Ammoniaci.

*Spirit of Sal-Ammoniac.*

Take of Sal-Ammoniac and Salt of Tartar, each a like quantity, grind them separately, then mix them together, and put them into a glass retort, and pour thereon as much Spring-water as will serve to dissolve the Salts. Then distil the whole in a Sand-heat, till the Salt that is caked in the receiver begins to dissolve or fall from the sides thereof.

Sal

Sal Ammoniacum volatile.

*Volatile Sal-Ammoniac.*

Take of powder'd Sal-Ammoniac, and Salt of Tartar, ground whilst it is yet hot, each a like quantity; mix them whilst they are dry, and immediately throw them into a glass cucurbit, with a blind head; then urge them with a strong fire in a Sand-furnace, so as an exceeding white Salt may sublime into the head\*.

Oleum Cerae.

*Oil of Wax.*

Take any quantity of Wax, melt it with twice its own weight of Sand, put it into a retort, and distil it in a Sand-heat; an acid liquor will first come over, then a *thick Oil*, which will stick to the neck of the retort, unless melted down by the application of a live coal.

This Oil is rectified into a thin one, by distilling it *per se* in a Sand-heat †.

\* For the full History of Sal-Ammoniac, with its various Preparations, and the best manner of conducting the processes, &c. see *Boerhaave's Chemistry*, pag. 198—204. PRACT.

† We have an instructive general process upon Wax in *Boerhaave's New Method of Chemistry*, pag. 105, 106. PRACT.

Q 3

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