The young man's book of amusement

Halifax, 1848

Experiment with Sparrows

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—into a metal vase half filled with water, I poured very gently an equal quantity of ether, so that no mixture might take place in the two liquids. The vase was placed under the receiver of an air-pump, which was so fixed upon its support, as to remain quite steady when the air was pumped out. At the first stroke of the piston the ether became in a state of ebullition, it was evaporated in less than a minute, and the water remained converted into ice. The experiment was made in an apartment, the temperature of which was 16 deg. R.

Experiments with Sparrows.

Count Morozzo placed successively several full-grown sparrows under a glass receiver, inverted over water. It was filled with atmospheric air, and afterwards with vital air. He found

First.—That in *atmospheric* air	HOURS.	MIN.
The first sparrow lived	3 ..	0
The second sparrow lived	0 ..	3
The third sparrow lived	0 ..	1

The water rose in the vessels eight lines during the life of the first; four during the life of the second; and the third produced no absorption.

Second.—In *vital* air or *oxygen*.	HOURS.	MIN
The first sparrow lived	5 ..	23
The second	2 ..	10
The third	1 ..	30
The fourth	1 ..	10

	HOURS.	MIN.
The fifth	0	30
The sixth	0	47
The seventh	0	27
The eighth	0	30
The ninth	0	22
The tenth	0	21

The above experiments elicit the following conclusions:—

1. That an animal will live longer in vital than in atmospheric air.—2. That, one animal can live in air, in which another has died.—3. That, independently of air, some respect must be had to the constitution of the animal; for the sixth lived 47 minutes, the fifth only thirty.—4. That there is either an absorption of air, or the production of a new kind of air which is absorbed by the water as it rises.

HYDROSTATICS AND HYDRAULICS.

The Pressure of Water.

THE pressure of water may be known to every one who will only take the trouble to look at the cock of a water-butt when turned; if the tub or cistern be full, the water runs with much greater velocity