

Elements of Physics

Proclus



Translated by Kenneth Sylvan Guthrie, 1925

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BOOK I

1. CONTINUOUS ARE things whose term is one.
2. CONTIGUOUS are things whose terms join.
3. CONSEQUENT are things between whom is nothing of the same kind.
4. The first moment of motion is the one than whom there is nothing longer nor shorter.
5. The ORIGINAL PLACE is the one that is neither larger nor smaller than the contained body.
6. That is at rest which, before and after, both itself and its parts remain in one and the same place.

PROPOSITION 1. Two indivisibles do not touch.

2. From two indivisibles no continuum can be formed.
3. What is interposed between indivisibles must be continuous.
4. Two indivisibles cannot be consequent.
5. Every continuum is divisible, and ever divisible.
6. If a quantity is composed of indivisibles, the motion made thereon will also be indivisible,
7. If the motion is composed of indivisibles, its time will also be composed of indivisibles.
8. Amidst things moved unequally. the swiftest, is the one traversing the greater space.
9. Things moved unequally, — if one takes more time than is required by the slowest, but less than the swiftest in this medium space of time the swiftest will cover the most ground and the slowest less. |14

10. Of things moved with unequal swiftness an equal apace is traversed by the swiftest in less time.
11. All time, magnitude and motion are divisible in infinity.
12. It is impossible to traverse an infinite magnitude in finite time.
13. No finite magnitude is traversed in infinite time.
14. If the swiftest bears to the slowest a sesquialter ratio, the lines were not indivisible.
15. A moment remains the same either in the past or future.
16. A moment is indivisible.
17. Everything that moves, moves in time.
18. Everything that rests, rests in time.
19. Everything that moves is indivisible.
20. If the parts of some motion correspond to the parts of some continuum, certainly all the motion will be of all.
21. All that is moved primarily is moved in that in which it is moved.
22. All that is moved, is primarily moved in an indivisible.
23. No mutation has any beginning from the moved, which is motion; no mutation has a mutation as beginning, at the time of which that which is moved may be said to be moved primarily.
24. If mutation is of something which possesses quantity, the first of this quantity will be incomprehensible.
25. If the first time of the mutation, whatever it be, is taken in any part of time, there will be a part of motion
26. All that is moved is moved primarily
27. All that is moved was moved primarily
28. If that which is moved is infinite, a finite quantity will not pass infinite time. |15
29. If what is moved is infinite, an infinite magnitude will not pass in finite time.
30. So motion is not infinite, because it is repeated.

31. All that is moved in a place is all in the moment according to the first place.
32. Everything indivisible in quantity is immovable by itself.

BOOK II

POSTULATES.

1. EVERY NATURAL body is movable according to the place.
2. All motion which is made according to the place is either circular, straight, or mixed.
3. Every natural body is moved by a single one of the above notions.
4. Every natural body is either simple or composite.
5. Every simple movement is of a simple body.
6. Every simple body is moved by a single movement according to its nature.

DEFINITIONS

1. Past intervals of movable things are in a ratio to their speed.
2. That is heavy which is borne to its centre.
3. That is light which is moved from its. centre.
4. Circular notion consists in being borne from one point to the same.
5. Contrary movements are those borne from contraries to contraries.
6. Time is the number of the notion of celestial bodies.
7. Motion is single when it does not differ in kind, is in one subject, and occurs in continuous time.

PROPOSITIONS

1. Things which by nature are borne circularly are simple.
2. Things which are naturally borne circularly are not identical with those naturally borne straight or mixed.
3. Things naturally borne circularly have neither weight nor lightness. |16
4. Nothing is contrary to circular motion
5. Things naturally borne circularly are not subject to generation or decay.
6. Every thing naturally borne circularly is finite.

7. Bodies of infinite magnitude have infinite powers.
8. Bodies of finite magnitude do not have infinite powers.
9. Powers of things moved in equal speed are in alternate ratio to the times of movement.
10. No weight nor lightness is infinite.
11. Nothing infinite can suffer from the finite.
12. Nothing finite can suffer from the infinite.
13. Nothing infinite can suffer from the infinite.
14. Simple bodies are finite in kind.
15. No sensible body is infinite.
16. Time is continuous and also perpetual.
17. Circular movement is perpetual.
18. That which is the cause of perpetual movement is perpetual.
19. That which is immovable precedes the movable things, and the things which move; it claims the principal rank.
20. All that is moved is moved by somebody.
21. As the First moves the circular conversion, it has no parts.