

Continental Drift Theory- by

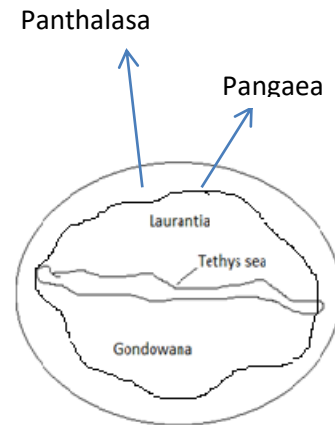
Alfred Wegener

Continental drift theory was put forward by Alfred Wegener in 1922. Wegener was a climatologist. He noticed that the signs of equatorial hot and arctic climate are found in places where they are not expected. He explained it by two possibilities-

- 1) The loss of sun's control over the earth
- 2) The drift of the continents.

His hypothesis:

According to him continents were compact before 200 million years ago. There was a super continent "Pangaea" and it was surrounded by a large ocean "Panthalasa". The continent was composed of light SIAL and ocean was composed of heavy SIMA.



Around 200 million years ago Pangaea started splitting. Then two large continents formed. They were- Laurantia and Gondwana. Tethys sea was situated between them. Subsequently Laurantia and Gondwana continued to break into other smaller continents.

Laurantia consisted of-

1. North America
2. Asia &
3. Europe

Gondwana consisted of-

1. South America
2. Africa
3. Australia &
4. Indian peninsular

According to Wegener, Pangaea started to split in the "Carboniferous" period.

The continents had two directions of drifting:

1. Towards the equator
2. Towards west

The forces responsible for drifting were:

1. Tidal forces
2. Gravity and buoyancy

The drifting caused redistribution of continents and ocean basins. The super continent Pangaea splits into seven small continents and the great ocean splits into five oceans. Drifting is still going on.

Evidence of drifting:

- a. If the continents brought back, they will fit into each other
- b. Joint fitting of Africa and South America (jig- saw- fit)
- c. The cape mountain of Africa and Sierra- de- Tendil appears continuous
- d. Greenland, Baffin land and Elsmere island fit into one another
- e. India, Madagascar and Africa fit into one another
- f. The Mid- Atlantic- Ridge: N. America and S. America will fit with Europe and Africa along the Mid- Atlantic- Ridge.

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