

Chapter 11

FORCE AND PRESSURE

Types of forces:

Based on nature of interaction between two or more objects forces can be classified into two types

(A) Contact force:

These forces are come into play when two objects in contact with each other.

Ex. Muscular force, Frictional force etc.

1 Muscular force:

The force come into play because of action of muscles is called Muscular force.

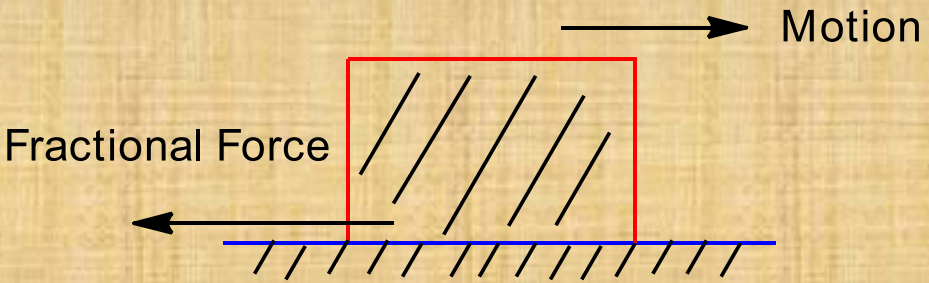
Ex.

- A. Walking, running is due to muscular force
- B. Expansion and contraction of wings is because of muscular force
- C. By using muscular force only a cow can walk, pull a cart

2 Frictional force:

This force will come play when an object try to move on a rough surface.

- ❖ Frictional force always opposite to motion of object



- ❖ If we through an object (like ball) with some speed the ball slowly decreases its speed and comes to rest due to frictional force only

(B) Non-Contact force:

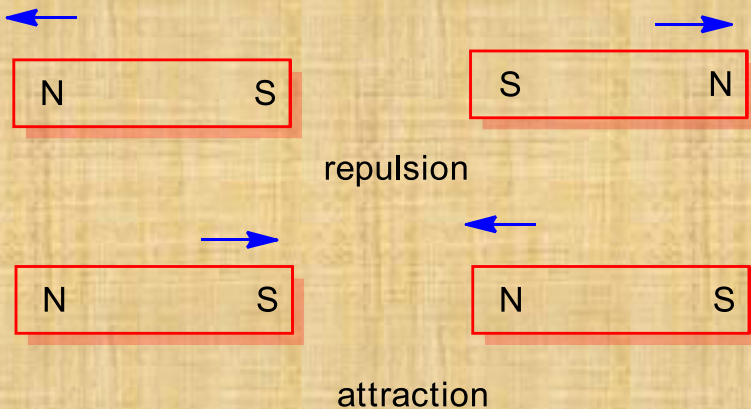
“Force acting between two bodies at a distance”.

Ex. Magnetic force, Electrostatic force

1

Magnetic force:

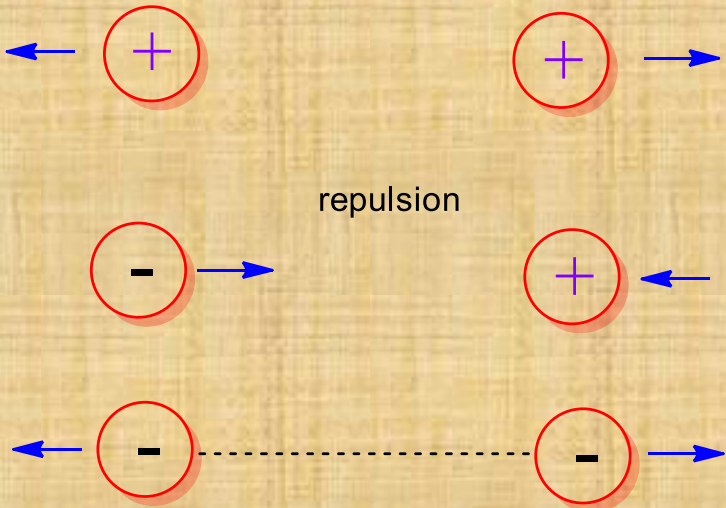
- A magnet can attract or repel another magnet without contact.



- N is called North pole, S is called south pole of magnet
- Like poles [N – N, S - S] are repel each other
- Unlike poles [N – S, S - N] are attract each other

2 Electrostatic force:

- Charges are responsible for electrostatic force
- Like charge [+ ,+ or -,-] repel each other



- Unlike charges are attract each other
- A charge can attract or repel another charge without contact that's why it is called non-contact force.

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