

Tecnica delle Costruzioni Meccaniche

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Materiale ad esclusivo uso degli studenti del corso di

Tecnica delle Costruzioni Meccaniche
<http://www.mecc.polimi.it/~miccoli/TCM/>

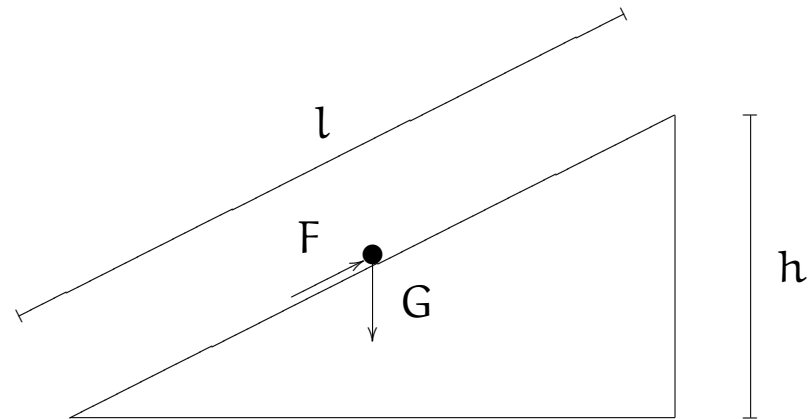
tenuto presso il Politecnico di Milano, III Facoltà di Architettura Milano Bovisa e Como.

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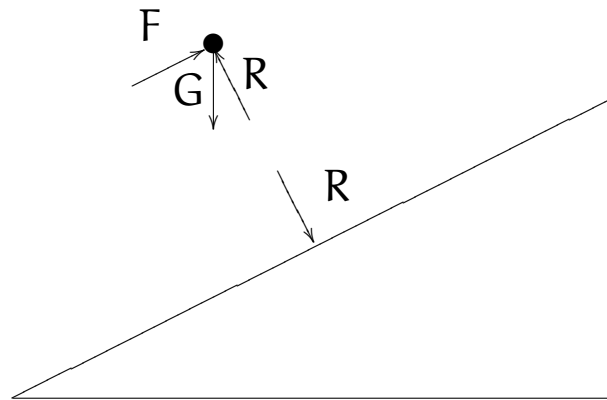
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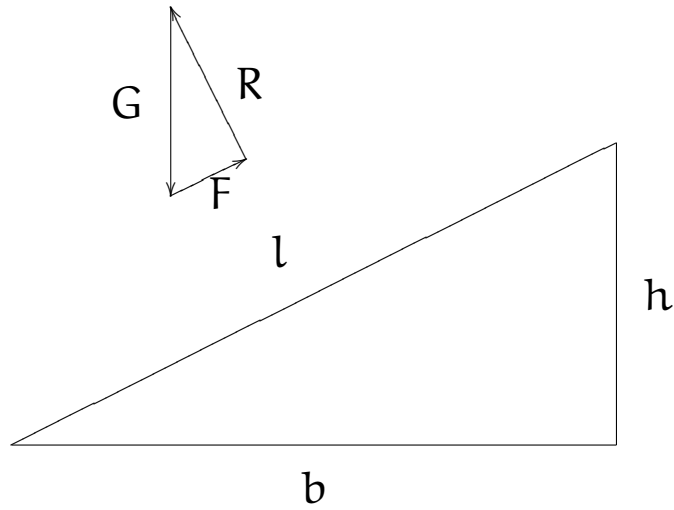
Piano inclinato



$$F : G = h : l$$



$$\vec{F} + \vec{G} + \vec{R} = \vec{0}$$



$$R \perp l, G \perp b \quad \Rightarrow \quad \angle GR = \angle lb \quad \Rightarrow \quad \triangle GFR \sim \triangle lhb \quad \Rightarrow \quad \boxed{F : G = h : l}$$

Spiegazione classica

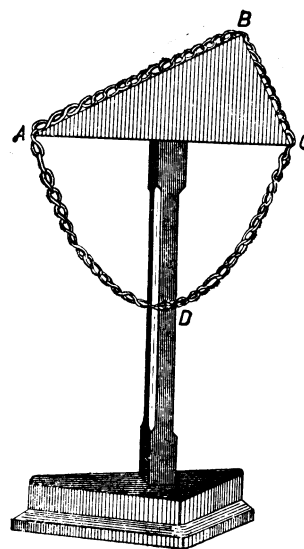
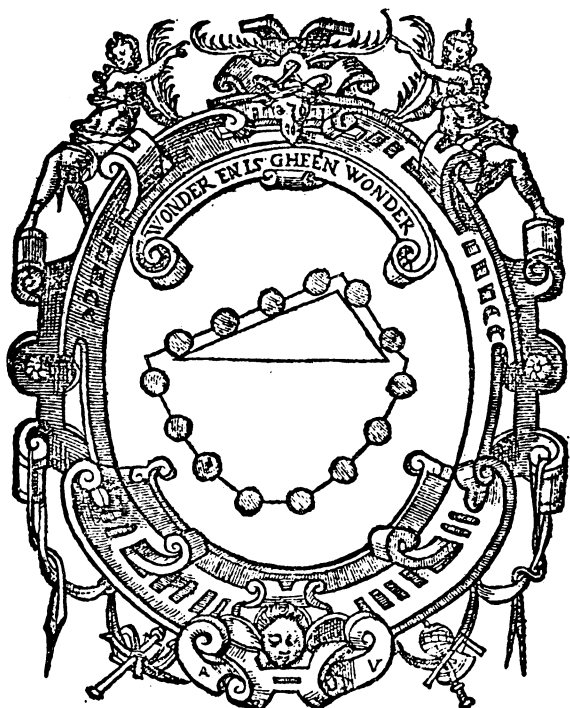


Figura 19

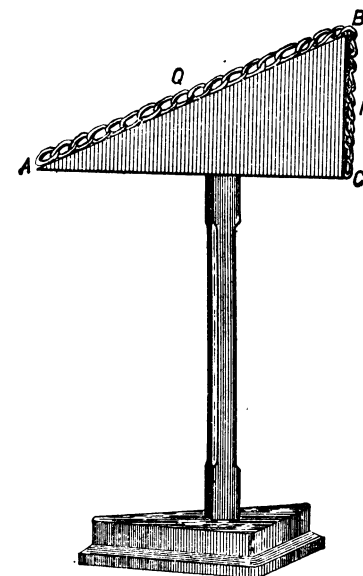


Figura 20

$$\frac{G_{AB}}{G_{BC}} = \frac{\overline{AB}}{\overline{BC}}, \quad F_{AB} = F_{BC}$$

in fig. 20:

$$F_{BC} = G_{BC} \quad \Rightarrow \quad F_{AB} = G_{BC} \quad \Rightarrow \quad \frac{F_{AB}}{G_{AB}} = \frac{G_{BC}}{G_{AB}} = \frac{\overline{BC}}{\overline{AB}} \quad \Rightarrow \quad \boxed{F : G = h : l}$$

Pulegge

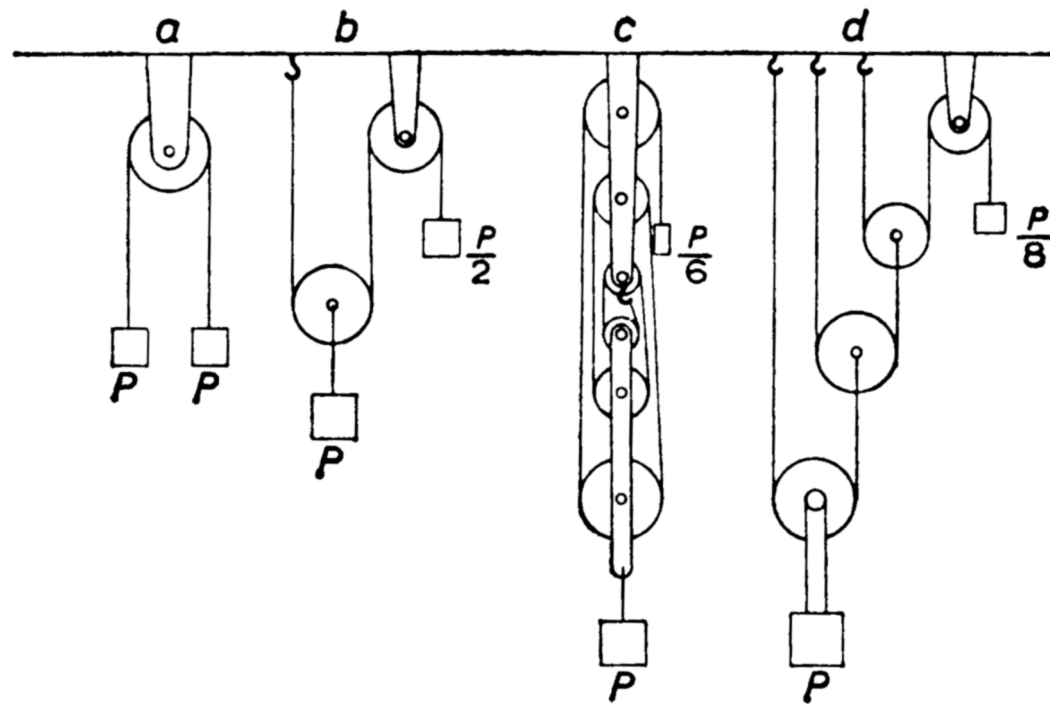
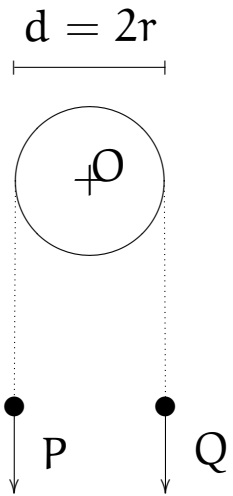


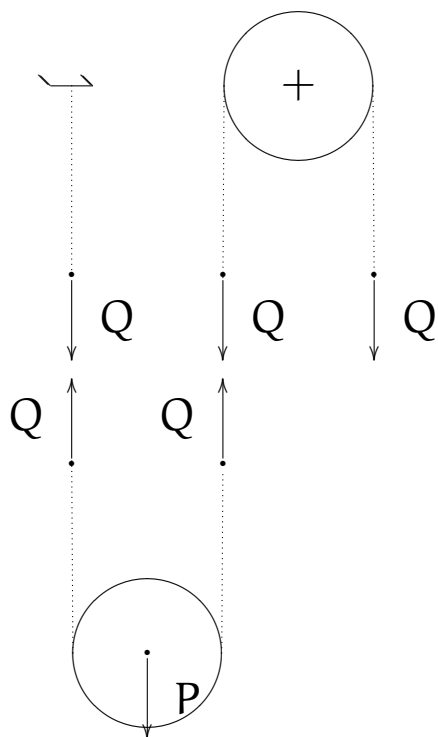
Figura 39

Carrucola semplice



$$\sum M_O = 0 \quad \Rightarrow \quad P \cdot r - Q \cdot r = 0 \quad \Rightarrow \quad \boxed{P = Q}$$

Carrucola doppia



$$2Q - P = 0$$

$\Rightarrow$

$$Q = \frac{P}{2}$$