## Nicholson's Operative Mechanir.

by One Hundred Copper-plates, representing nearly five hundred machines, and objects connected with them and the subject. CONTENTS. On Matter. Of the action of Forces Friction the Centre of Gravity Mechanical Powers. The Lever Wheel and Axle Pulley Inclined Plane Wedge Screw Simple Combinations of the Mechanical Powers. Mill Geering. Definition of Terms To describe the Cycloid and Epicycloid On Teeth of Wheels, Spur Geer Bevil Geer Couplings. Square couplings with double bearings Clutches or Glands Boring Mill-Clutches Solf-easing Coupling Bolton and Watt's Coupling Link Hook's Universal Joint Double Universal Joint Disengaging and Re-engaging Machinery Sliding Pulley Fast and Loose Palley Bayonet Lever Tightening Roller Friction Clutch Friction Cone Self-disengaging Coupling On equalizing the Motion of Machinery Steam-Engine Governor Water-Wheel Governor Wind-Mill Governor Tachometer, by Donkin **General Observations.** Animal Strength. Immediate Force of Men, without deducting for Friction Performance of Men by Machines Force of Horses Work of Mules Extraordinary Feats of Strength How extraordinary Feats may be performed by Men of ordinary Strength. Water. Water-Mills Undershot-Wheels Smeaton's Experiments on, by Lambert **Overshot-Wheels** by Burns Smeaton's Experiments on, by Burns, without a shaft Chain of Buckets

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